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New South Wales.

Board of Trade.

Report of the New South
Wales Board of Trade...

Sydney

1921

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NEW SOUTH WALES.

REPORT

OF THE

New South Wales Board of Trade

UPON THE

RURAL INDUSTRIES

AND THE QUESTION OF

A RURAL LIVING WAGE.

CONCLUSIONS UPON INQUIRY DURING 1920-21.



SYDNEY:

WILLIAM APPLEGATE GULLICK, GOVERNMENT PRINTER.

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ACCURATE
YET SIMPLE
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The Rural Living Wage, 1921.

THE PUBLIC INQUIRY.

On the 5th July, 1920, the Board, in exercise of its functions under section 79 of the Industrial Arbitration Act, 1912-19, and in the process of determining what should be the living wages to be paid to adult male employees and to adult female employees in the State, instituted a separate public inquiry into the cost of living of employees engaged in rural occupations. The Board had in the previous year been engaged upon a similar inquiry, but it had refrained, owing to the law under which it was operating having been modified by Parliament in the month of December, 1919, from making a declaration of living wages to be paid to employees in rural occupations during the year 1919-20. The inquiry was nevertheless continued throughout the first half of the year 1920, and was formally reconstituted on the 5th July, 1920. The Board then visited the North Coast districts of the State for the purpose of taking evidence as to the conditions of the rural industries there. It subsequently, when sitting in Sydney on the 7th October, 1920, announced its intention to take notice of, and to consider in the pending inquiry, all evidence taken in relation to rural matters from the 19th day of May, 1919. It then also informed persons interested in its inquiry that they would have an opportunity of revising or reconsidering any portion of that evidence, and of giving further evidence on the general issue as to the wage to be fixed ultimately for rural workers. For technical reasons a separate public inquiry into the cost of living of employees engaged in rural occupations was linked with the general living wage inquiry. The declaration of the Board with respect to adult male employees not engaged in rural occupations was made and published on the 8th October, 1920. The declaration of the Board with respect to adult female employees not engaged in rural occupations was made and published on the 15th December, 1920.

In the course of its separate inquiry the Board called for evidence upon the conditions of the rural industries and of their ability to bear additional burdens in wages, and the probable effect of the same upon production. This inquiry was continued from its reinstitution on the 5th July, 1920, through a series of public sittings held in the metropolis and other parts of the State. Those sittings numbered in all fourteen, nine of them being in places other than the metropolis, and the balance in the metropolis. From the 31st May, 1920, to the 22nd June, 1920, eight public sittings of the Board had been held at Sydney, and the evidence taken thereat had been directed principally to what was described as the serious condition of the country owing to the prolonged drought. Evidence was given by representatives of the Railway Commissioners, the Rural Industries Board,

the Irrigation and Water Conservation Commission, the Graziers' Association, and employers and employees in the wheat and dairy-farming industries. Thirty witnesses were examined in the period between the dates last-mentioned. Fifty-one witnesses have been examined by the Board since the 5th July, 1920. On various occasions advocates of rural employers' and employees' interests have appeared before the Board and taken an active part in its proceedings.

In the course of its inquiries under section 79 the Board is invariably compelled to have recourse to data supplied from official statistical sources for the purpose of finding a basis for its determinations and declarations. Those who are concerned in the inquiries made by the Board do, indeed, make cases by adducing evidence and propounding theories as to the average cost of living and the needs of the average family in the community, but the Board has not yet found that such evidence and arguments can take the place of the teachings of official statistics with regard to the usages of the community in respect of matters other than clothing. Parties appearing before the Board have nevertheless helped it to construe and apply the official statistical data. But, while in its more general inquiry with respect to employees not engaged in rural occupations the Board has obtained from statistical publications the most important measure of assistance, it has found that in its separate public inquiry into the cost of living of employees engaged in rural occupations the available statistics have been of much less value.

THE POSITION OF RURAL STATISTICS.

Much of the information required by the Board for the purposes of its separate inquiry could not be obtained from the perusal and treatment of existing official statistics. The aggregates given in official statistical publications are not, in the main, co-related. There is no definite means of ascertaining how many wage-earners there were at any particular period in all or any of the branches of rural enterprise, what that labour produced, how much it earned, and for what number of people it provided support. Available statistics throw no light upon the probable effect of wage variations on the cost of primary production or the ability of the rural industries to bear additional burdens in wages. The conditions of the rural industries are not, indeed, shown statistically in any such manner as would indicate the relations between land, labour, and capital in rural enterprise.

The inadequacy of local published statistics in the connections referred to is not peculiar to the State and Commonwealth. Local defects in official statistics are similar to those which may be found in the statistics of Great Britain and other countries. Accumulating dissatisfaction at the failures of successive British Royal Commissions to obtain sufficient guidance from existing statistical agencies was publicly expressed at the end of the year 1919 in a memorial presented to the British Government by a group of distinguished economists, statisticians, representatives of learned societies, chambers of commerce, and various commercial concerns. The majority of the criticisms levelled in that petition at the existing statistical practices and outlook are applicable with equal force in this State. Until these

defects are in a large measure remedied, the Board will have no sufficient statistical foundation on which to build decisions affecting the primary industries as a whole.

The Board has further been hampered in its inquiry, until very recently, by the inability of the State Statistical Office to make analyses and combinations of statistical data on its behalf without payment to it by the Board for such services as it would thus render.

The Board of Trade, by reason of the conditions of its constitution and work, as set out in Part IX, as amended, of the Industrial Arbitration Act, 1912, must be regarded as the agent of Parliament for the purpose of collecting information by which the State is to be guided in its legislative policy, and for the purpose of framing subordinate legislation in connection with living wages and conditions of apprenticeship. It is, therefore, when operating as an agency of inquiry, strictly comparable with committees of inquiry appointed by Parliament from amongst its own members, and it should receive the same enthusiastic and unconditional support from administrative departments as such committees do. If it is to be regarded as nothing more than a departmental agency, the question suggests itself whether Parliament intended a judicial officer of the State and colleagues associated with him, who are in no sense public servants of administrative rank, to be subjected to the limitations and restrictions emanating from purely departmental policy and inter-departmental relationships. Necessarily the Board must be served by officers of departmental rank, who should, in their turn, be controlled for departmental ends; but the concerns of the Board itself are with the broader interests of legislation, and the processes of legislation and its functions must be exercised accordingly.

It should be obvious that when exercising a power which may involve the community in a serious disturbance of the conditions under which the national income is distributed, and may alter the share which various sections of the community are to have in the national wealth, the Board should be assisted to the utmost possible extent by all agencies of the State.

GENERAL ECONOMIC CONSIDERATIONS.

The mechanical basis of agriculture and the developments of present-day transportation and finance have changed the farmers' market from a local to a world market, and have subjected the farmer to world-wide competition, and if prices must exceed costs, the fair costs, in their turn, will be determined by what intelligence and material equipment can produce not only in the environment of a particular local market, but throughout the world. It is primarily and essentially for this reason that Government is interested in smoothing the path of the agriculturist and advancing agricultural interests by organising departments of agriculture, by fostering the development of scientific knowledge as applied to local conditions, and by furnishing special facilities for obtaining credit for agricultural requirements. The position of the farmer in the scheme of social life is unique. Enjoying the special concern of the State, he is nevertheless deprived, by the conditions of his existence, of many of the satisfactions which are willingly conceded

to the industrial worker under modern conditions. But if he is at some disadvantage as a consumer, he is accumulating capital, and his basic needs of food and shelter should not be the cause of anxiety that they frequently are to non-rural workers. Economically, and so far as concerns the most important form of public wealth, the increment in land values, the advantages of the farmers' conditions are apparent. It is therefore generally conceded that the landowners conduct and operations may usefully be made the subject of public criticism, and that the farmer, in his turn, owes a special duty to the State.

The community is particularly concerned with the standard of life in rural circles, and the problem of the education of the rural children. National ideals must be served in rural as well as urban relations, and it is probable that the insistence upon improvement in rural standards will have its reflex in efficiency in production.

The Board is, of course, primarily concerned with the industrial relationship in agriculture, and not, to the same extent, with the other and more general matters that have been referred to, and it will emphasise only the matters in which it is primarily concerned. Agriculture, insofar as it depends upon employed labour, calls for such services as the ordinary labour market does not usually supply. "After all," says the Lewis Committee on Juvenile Education in Relation to Employment after the War, "agriculture is essentially from top to bottom a skilled industry."^{*}

Agricultural labour, to be efficient, must be specially trained, but the methods of training adopted have given rise to the impression very widely held that the agricultural labourer is an unskilled worker. There is less segmentation of work and specialisation in agriculture than in the secondary industries. There is less routine and method in agriculture owing to the uncertainty of climatic and natural conditions. On the other hand, there is more independence of action and self-direction in agriculture owing to the impossibility of close supervision being exercised over an extensive field of operations.

In New South Wales, as in the United States of America and elsewhere, the agricultural population is diminishing in its relative proportions. "Nineteen years ago," says a Select Committee of the Legislative Council on the Agricultural Industry, "25.7 per cent. of the State population was in the metropolitan area. Now 41.5 per cent. is in that area. In the municipalities and small towns figures for the same period show 33.6 per cent. in 1901; now they reach 36.4 per cent. On the other hand, 30.7 per cent. of our population inhabited the rural districts in 1901; and to-day the proportion has declined to 22.1 per cent. . . . The area occupied by the population in the city and the municipalities and small towns is very limited, amounting to about 4,000 square miles. . . . The number of persons engaged in rural industries has declined from 154,000 in 1911 to 129,500 in the year 1918-19. Yet the value of the rural production amounts

^{*} Final Report (England), cd. 8812, p. 7.

at present to about £55,000,000 as compared with the combined value of mining, manufactures, forests, and fisheries, viz., £43,000,000. Despite the excessive population in the city and the urban areas, the rural population accounts for the larger portion of our production."^{*}

It must not be forgotten, however, that under earlier conditions of agricultural work the surplus over his own needs that was produced by the farmer was much less than now, and a much smaller proportion of the population could be maintained in towns and cities. The difference in productivity has resulted from the greater use of machinery of a highly efficient character. Studies made by the United States Department of Labour show that by the methods used in 1830, 100 hours of labour would produce about 46.5 bushels of barley, whereas in 1896 it would produce 1,100; and that in the production of wheat each day's labour brought in 3½ bushels in 1830, and 60 bushels in 1896.[†] This position is accentuated to an extraordinary degree in Australia. "Here," said Professor R. D. Watt, in giving evidence to the Select Committee of the Legislative Council already referred to on the 20th September, 1920, "one man's labour will put in and take off a much bigger area of wheat than is the case in any other country I am familiar with. That is partly due to the longer season, and partly to the fact that we can use implements—more particularly harvesting implements—which cannot be used with success in other countries. The modern harvester can be used in Australia. It cannot be used, except in some localities, in either the United States or in Canada, because the head of wheat and the straw do not get brittle enough. That is an advantage we have over them."[‡]

Since the labour generally required upon farms is skilled, the successful conduct of the industry is possible only if the farm families are self-sufficing in this respect, or if the conditions of farm life and employment on farms are sufficiently attractive to counteract the allurements of town life and work. In the United States of America an attempt is being made by processes of education and demonstration, and the organisation of farmers' institutes to promote a higher type of rural life, and to stem the tide of migration from the countryside. The long apprenticeship that is served by the farm child to the arts and science of agriculture will represent a serious waste of life if the migration is to continue.

The labour question in agriculture is quite unlike that of the secondary industries, because of unavoidable isolation, because of the essentially personal character of the farmer's enterprise, because of the matter of standards that has already been mentioned, and because of the difficulty of finding in the ordinary labour markets persons who have acquired skill in the breeding and care of animals and plants, and methods of handling stocks and crops, and who possess the moral qualities of self-restraint, self-reliance, independence of judgment as to the demands of times and seasons, and faithfulness in the absence of supervision. The agricultural industry is organised in this State, in Australia, in America, and, indeed, throughout the world, on the

^{*} First Interim Report of the Select Committee of the Legislative Council (N.S.W.) on the Conditions and Prospects of the Agricultural Industry (C.67—A, p. iii).

[†] "Agricultural Economics," by H. C. Taylor, 1919, p. 99.

[‡] First Interim Report, Minutes of Evidence, p. 6.

domestic or family basis. "If the farms of the whole world were considered, it would still be true," says one of America's leading publicists upon agricultural matters, "that the typical farm is a family farm."* And he adds, "The most satisfactory solution of the farm labour problem in many parts of the United States is to reduce the size of the farm to what can be handled by the family."†

The hired assistant in agriculture cannot, however, be dispensed with, and if the proper attributes are to be found in him his employers must be prepared to make his work steady, his hours as regular and reasonable as may be, his condition of life proper, and his wages such as will serve to maintain a standard family according to the well-established principles adopted by the Board and other wage-fixing authorities in this State. If the agricultural employee were possessed of no special attributes, it would be difficult to resist a claim made on his behalf that he is entitled to a wage comparable with that fixed under statute as the living wage for unskilled workers in other than rural industries.

When, in the year 1917, it was contended in the Commonwealth Court of Conciliation and Arbitration that it was not "in the public interest" to make an award for ordinary unskilled labourers on pastoral properties in Australia, the President of the Court said:

The truth is that these employees on stations have the normal needs of the human being as much as employees in the cities; and the objective of industrial peace involves a reasonable satisfaction of these wants. For this reason I ought, *prima facie*, to provide a minimum wage in order to enable a man to maintain a family. But it is urged that such a wage would mean a revolution in the industry. The greater number of the men are single; and their wages, 20s. or 25s. per week—sometimes even less—with keep for themselves only, are not nearly sufficient in these times of high prices to enable a man to maintain a family. Many men of 25, 30, 35, or 40 years of age remain unmarried. Some married men are allowed to live with their families on the station, and I am told that these men are steadier and more trustworthy. They certainly draw more remuneration than the unmarried men from their employers in money or in kind. The varieties of remuneration are infinite; but most commonly the employer provides a house and rations for the family as well as for the employee; and it may well be that this fact tends to keep down the number of married men. . . . I must say that I cannot see how it is for the public interest that unmarried men should be put in a position of undercutting the married men in the matter of remuneration. I cannot see how it is for the public interest that I should depart from the practice of this Court, as of other labour tribunals—the practice of prescribing the same minimum wage for adults, whether they be married or not. If these men get a wage sufficient to maintain a family there may possibly be more families; and the problem of spreading population in the vast areas of our con-

tinents may be, to some extent, solved. There is, certainly the difficulty that employers may not see fit to provide accommodation for more families on their broad lands; and if the man live on the station and the family live in a distant town, the social advantages of family life must be largely lost. But there is not much to choose between this position and the present position—in which men in the prime of life cannot marry at all. It is contended that the occupation of station-hand is not suitable for a man with a family unless the family live with him on the station. That is quite true; that the occupation is not suitable for a man who wants to marry, unless he get also enough wages to support a wife and children. The difficulty of finding a family residence on the station applies to both cases—the case of the man who is married, and the case of the man who wants to marry. . . . I cannot compel the employers to give each married man a family residence on the station, but I can at least secure for each man a wage which will justify him in getting married, subject to the difficulty of finding a family home. To meet this difficulty I propose that the wages prescribed need not all be paid in money; so that if the employer should see fit to provide a house on the station he may deduct the rent of it from the wages; and if he should see fit to give the family the use of a cow or a bit of garden ground, or some vegetables or meat, he can deduct the value of the milk or other allowances from the wages. . . . But I must see to it that adult men get the basic wage, which I take to be about 63s. per week, looking at Australia, with the four States concerned, as a whole. . . . I treat an adult man as entitled to enough remuneration to support a wife and family, whether his family be numerous or small, whether he have a wife or not.*

Earlier, in 1912, when dealing with harvesting, packing, and forwarding employees in the fruit-growing industries of Victoria and South Australia, the Court based the minimum wage for adult male employees of the unskilled class on the normal needs of the average employee regarded as a human being living in a civilised community, and stated that one of such normal needs was the need for domestic life.†

It is true that all experienced agricultural employees are not of equal value, but the same assertion can be made of employees, whether skilled or unskilled, in any and every industry. The Board has been impressed with the unanimity of the opinion on the part of agriculturists that the employable labour generally available to them is uneven and even inferior in quality, but it has heard no argument designed to convince it that there is any essential difference between the basic wage rights of rural and non-rural employees.

Credit and finance as affecting rural enterprise occupies an important position in the scheme of general considerations pertinent to the Board's inquiry. The capital necessary for rural equipment and development must

* "Agricultural Economics." Henry C. Taylor, Macmillan Co., 1919, p. 157.
† *Id.* p. 158.

* A.W.U. v. Pastoralists' Federal Council of Australia and Others, 11 C.A.R., at p.p. 417-420.

† Rural Workers' Union and Others v. Employers, &c., 6 C.A.R. at p. 71.

ordinarily be derived in the long event from the surplus of production of the industry itself, but the provision of reasonable facilities for obtaining credit for rural purposes must be the aim of every wise system of public finance. That system may inculcate the principle of self-help; and, in fact, in countries where agriculture receives the greatest amount of public support it is remarkably self-sustained. Credit on the general economic plane is dependent upon, and relative to the exact and capable treatment of costs of production, upon, in fact, economy in the use of capital. Where an industry is under the special protection of the State the same requirements may not be made, but proper and reasonable conditions are nevertheless essential, and the rural enterprise must adjust itself to these conditions. Organisation of the agricultural industry may be one of the conditions imposed in the interests of the general public, and it is a resource upon which the farmer may fairly be thrown back by public requirements. Co-operation is a force of which he has hitherto availed himself but little. The average small farm with an efficient modern equipment is almost necessarily over-capitalised; that is, it cannot find constant employment or full effective use for such parts of its equipment as are represented by machinery, horses, &c. Practically the same plant that is required for a 640-acre farm is required on a 320-acre farm. Again, the small farm cannot, in average circumstances, justify the purchase of high-class stock for reasons of a similar kind. The relation of farm capital to labour income calls for special study in this State. A standard of organisation may well be set up in the public interest and applied as a factor determining the fair cost of production. The responsibility of the State itself is involved in these considerations, for the size of the farms must, by political policy, be such as to make the efficient use of modern and costly machinery possible to the farmer.

Again, the question of land values and their relation to the costs of production and the price of products has been raised as a matter incidental to the adjustment by administrative and quasi judicial means of the relationships between producer, entrepreneur, trader and consumer, and it presents, in the present state of organised knowledge of rural economics, an almost insoluble problem. Land values, when considered in relation to an industry, as distinguished from an individual, are only notionally a basic element in the price of products, for they are, in reality, themselves based upon the value of the products that can be derived from the land. The true value of land and production may be ascertained and checked by reasoning to and from land values, but in determining the respective rights and duties of the farmer and the community there is much to be said in condemnation of the practice of deriving costs of production from existing land values as a basic element. Land values are created both by land users and by speculators in land, and the land user is often enough both farmer and speculator. Generally speaking, there is a consistent tendency to increase in land values, and lands are purchased both by farmers and others because of the universal acceptance of the principle that lands are safe investments. More is known in all ranks of society with respect to investments in land and mortgages over real estate than of investments of all other kinds, and the all-prevailing confidence in the future of the land leads to an economic

state of facts that cannot be denied. A farmer will buy a farm now that cannot well give him a return that is commensurate with his investment, because he is convinced that in the time to come his returns will easily average the satisfaction that he desires. He thus enters into the contest for land and disregards its direct productivity, and he discloses the fact that he expects to receive from the land gains other than those that are provided by the crops. The mere investor is in comparable position. So long as his principal is safe he may be content with no returns from it in the way of interest for many years, because he, too, believes that in the ultimate event his purchase will prove profitable to him. The price of land is thus inflated artificially, apart from the natural competition that may and should exist between farmers in the economic process of giving to those with the greater capacity the greater opportunity and natural advantage. These tendencies and factors must be weighed when any attempt is made to adjudicate upon the grievances which the farmer advances as against his community in respect of prices and the cost of production.*

No sufficient survey of the relations between the various factors of production in agricultural enterprise could be made by the Board as it is at present situated, and it remains unable to do more than generalise in its statements as to the economic conditions of the rural industries and the probable effect of wage burdens upon production. The co-ordination of the various departments of farm enterprise in such a manner as to provide for the economical and continuous use of the available labour and equipment is, of course, the particular problem of the individual farmer. Wise selection of his various enterprises in agriculture is also a primary concern of the individual. But the defects of organisation that transcend mere production and relate to buying and selling are the concern of the community of farmers and of the State. The principal issue which has presented itself to the Board is whether the needs of a human being in a civilised community, and employed in the rural industries, are of paramount importance when looked at from the point of view of what can presently be ascertained as to the conditions of the industries. The Board is driven to the conclusion that they are.

When the farmer can secure temporary additions to his capital by facilities organised by the State, as should speedily be the case under the lately inaugurated scheme for the establishment of rural credits and a rural bank his prospects will be greatly improved. He is frequently in a position to make profitable use of larger capital assets than those which he individually commands, and the element of improved organisation will no doubt be extensively introduced into his affairs by the indirect influences of a wisely administered system of State control of rural credits.

There is a form of co-operation which is ordinarily not in contemplation when co-operative purposes are discussed. District labour can be organised for qualitative as well as quantitative purposes. The conditions of labour, other than the wage, affect productivity directly and indirectly. Some

* "Economic Conditions, Governmental Finance, United States Securities." The National City Bank of New York, December, 1920, p. 11.

increases in the cost of labour, other than through wage rates, may so increase its efficiency as to produce more than corresponding results in production.

The farmer does not yet realise the great importance of keeping an exact record of his operating costs as a means of preserving his margins of profit and determining what combination of the factors of production is for him the most economical and useful. Credit must be more readily available under any and every system of banking when the problem of agricultural costs has been made more clearly referable to accepted standards of productive operations. At the end of each season the farmer should be able to state what costs he has incurred in securing his returns, and in what proportion each crop or activity contributed to his financial position. Analysis and combination of the actual facts can alone determine the value of his work, the costs of production and his own economic position. The true and actual cost of production must be ascertained if the rural industries are to claim and deserve exemption from the general industrial rule, or to exert the influences to which they may properly aspire upon the general market. One important consideration must not be overlooked: Australian production helps to make the world's prices for agricultural products, and the cost of production abroad does not wholly control the market for local and pastoral products. And there is no reason to suppose that the Australian farmer is in anything like the position of an economic marginal producer. The farmer is himself entitled to the wage that will insure to him the living that is regarded as proper in the community of which he is a member. Costs of production must reflect that standard, other things being equal. Prices as fixed for commodities through State intervention, or, in the last event, by competition, do not fail to recognise this principle. It is thus the farmer's own personal interest to see that labour on the farm is adequately remunerated. If the wheat-grower, for example, is to be guaranteed minimum and maximum prices for his crop, based on the fair cost of producing under average conditions, with a fair margin of profit in accordance with the tendencies of the times, standard wage conditions are for him a matter of supreme personal importance.* In countries where the standard of living is high, the arts and science of agriculture are most highly developed, and productivity increases more rapidly than the cost of wages. The burden of competitive wages has, therefore, not necessarily prejudiced rural enterprise. None the less, as production is the mother of wages, labour efficiency is essential as an independent support of standard wage rates. The rural enterprise must, as a principle of business organisation, compete for the highest grade of labour with non-rural enterprise. When the necessary exact and deliberate analyses of costs and returns are made, and the confusion of investment, labour income and profits is avoided, and the proper credit is given to the compensation taken in living and other conditions, and when accretions to the value of the farm property are brought into account, correct significance will attach to the question of hire.

* The existing Federal and State guarantees are in point, as is also the English Agricultural Act, 1920. See also the resolutions of the Royal Society of N.S.W., Section of Agriculture, 13th September, 1920, quoted in Minutes of Evidence, p. 2, appended to First Interim Report of Select Committee on Agricultural Industry (N.S.W.), 1920.

The farmer is, by habit born of his necessities, a saver of his income, and tends to lose sight of the magnitude of his thrift.

Witnesses with an unquestionable claim to be regarded as representative agriculturists, made it plain to the Board that the farmer's need is not cheap labour, but efficient labour and productive labour such as his own family provides under conditions that make for a contented countryside. In a new country, where settlement is sparse, and cheap food the primary consideration, the purpose in view is not to produce the greatest amount per acre, but per man. The human labour factor is of paramount importance in all quarters of the civilised world, but in Australia it carries an added significance.* High returns per acre make for high profits when great fertility and good seasons combine to assist the farmer. Otherwise, high yields call for high prices, inasmuch as they represent intensive and costly effort and organisation of resources.

The farmer's conditions are, in many respects, exacting. Fire, drought, flood, and pests may involve him in ruin. His working day is long and lonely, and market disappointments frequently follow in the train of good seasons. But if fortune does not very often come to him with both hands full, her single-handed compensations are obviously substantial. His share in the national dividend is great, and it remains for him to accept the national wage system as a condition of his work.

EVIDENTIAL MATTER.

It happens that rural employees are not ordinarily engaged in numbers by individual employers, and that the whole of the rural labour force of the State is of no very significant proportions. Evidence upon this aspect of the case is not abundant, and has been derived mainly from statistical sources.

Including males and females, the total number of persons "engaged in agricultural and pastoral pursuits" in the State was, according to the census of 1911, 152,000. Including males and females, the total number of persons "engaged permanently in rural occupations" in the State varied, according to the State Statistician, from 151,200 in 1911 upwards to 154,400 in 1912, and downwards to 139,500 in 1919. The discrepancy in the figures as shown by the census of 1911 and by the State Statistician is complicated by the assessment of females in 1911 in the former case at 4,900, and in the latter case at 24,000, and by the inclusion of shearers, harvest workers, and other casual hands whose occupations are mainly rural in the former case, but not in the latter.†

An analysis by the Board's Statist of the census figures shows that of the 147,300 males engaged under conditions not influenced by the war, 17,904

* See evidence of Professor R. D. Watt upon Inquiry by the Select Committee on the Agricultural Industry (N.S.W.), First Interim Report, 13th October, 1920, Minutes of Evidence, p. 6.

† See Appendix No. 1. Statement of D. T. Sawkins, p. 25.

were employers in agricultural pursuits, and 14,012 employers in pastoral pursuits; that 12,269 were working on their own account in agricultural pursuits, and 7,551 in pastoral pursuits; that 10,468 were assisting but not receiving wages in agricultural pursuits, and 5,512 in pastoral pursuits; that 30,819 were wage or salary earners or out of employment in agricultural, and 40,190 in pastoral pursuits; and that 6,139 persons could not be identified as belonging to any of the specified classes in agricultural pursuits, and 2,459 in pastoral pursuits. The employee class, approximately stated, and disregarding those unspecified, included, for both sections of the rural industry, some 71,000. Of the 65,000 male wage-earners in employment, about 48,000 were between the ages of 20 and 60, and 45,000 were adults under the age of 60. The unspecified individuals, if included as employees to the extent of 10 per cent., would raise the number of adult male wage-earners under the age of 60 to 49,000.

In the year 1907 the Commonwealth Court of Conciliation and Arbitration found that in 1907 the Australian Workers' Union comprised 14,866 members in New South Wales, most of whom were engaged in shearing and the occupations allied to shearing, and that the Union represented a very considerable proportion of the shearers and shed hands of the State.*

The State Statistician's estimate of the number of shearers, harvest workers and other casual hands in rural work stands between 20,000 and 30,000. The smaller of these two limits is the more in agreement with the other statistical data, and the proportion of adults in this labour force would be extraordinarily high. The inference, therefore, is drawn that the permanent adult male employees of the wage-earning class in pastoral and agricultural pursuits number approximately 30,000.†

The adult female employees of the wage-earning class in rural industries are difficult of enumeration. The annual returns, as is suggested by the State Statistician, must include women who devote the greater part of their time to domestic duties. They would include also a large proportion of women who are members of family groups and women who do not fall into the wage-earning category. Women make very valuable contributions to the success of the family farm, and particularly is this the case in the dairy-farming industry. But so far as work out of doors is concerned, there is a tendency to restrict it to male workers, and the State Statistician's opinion must be regarded as well-founded.‡

The statistical evidence as to the comparative importance from the human labour standpoint of the various sections of the pastoral and agricultural industries in 1911 shows that farming gave occupation to 65,267, pastoral work to 43,881, dairying to 23,230, market-gardening to 4,758, fruit-growing to 3,729, horticulture to 1,791, poultry-raising to 1,191, and miscellaneous crops and work, including pig and bee keeping, to 3,040. The State Statistician's figures show that in 1918 cultivation of the soil gave occupation to 47,858 males, pastoral work gave occupation to 40,988 males, dairying to 21,071 males, and poultry, pig, and bee keeping to 2,632 males. The

* A.W.U. v. The Pastoralists' Federal Council of Australia and Others, 1 C.A.R. 62, at p. 78.

† See A.W.U. v. Hans Irvine and Ors., No. 65 of 1918, p. 7, Comm. Arb. Court.

‡ See Appendix No. 1, p. 27.

Commonwealth Statistician gives compilations for the Commonwealth according to grade of occupation of males engaged in various sections of rural occupations in the Commonwealth, and it is thence found* that the adult wage-earners under 60 years of age represent 27 per cent. of all males engaged in farming, 31 per cent. of all males engaged in orcharding, 35 per cent. of all males engaged in market-gardening, 44 per cent. of all males engaged in horticulture, 47 per cent. of all males engaged in grazing, 19 per cent. of all males engaged in dairying, and 12 per cent. of all males engaged in poultry-raising. There is little doubt but that the percentages for this State do not differ greatly from those for the Commonwealth.

The rural industries of the State have been established, and are sustained in the main by the labour of those who own or control the other factors of production, viz., the land and equipment. Owner, manager, and workman are very generally to be found in the one person, and frequently enough the employees, when they exist, are the sons of neighbours who hope to be independent farmers in their turn. Quite usually the farm family supplies the whole of the labour required on the farm, and the surplus of its members finds occupation and employment on other farms. This conditions of things has an appreciable effect upon the industrial relationship of the farmer and his infrequent employees of the permanent class. There is not the distinction in conditions of life between the farmer and his permanent hands that is found in other industries. They may live together as a family. They may work together on more or less equal terms. The control of the work and its general policy are matters of mutual consideration; and supervision, partly for that reason and partly because of the necessary distribution of work, is not close or exacting. The conditions of the farm worked by family labour are generally reflected upon the farm worked partly by employed labour. An interest in the work is thereby encouraged, and the advantages of the system are mutual. But whereas the members of the family are bound by ties of natural affection to one another, and share in the prosperity produced by their combined work, the associated employee must, to be retained, have not only the inducement of sympathetic treatment, but such a prospect of acquiring skill, and credit as will assure his future. The wage is an important element in these considerations, for the aim of the employee in the agricultural industry is to be an independent farmer. Character and skill may take him far along the road to independence, but are not likely to suffice alone. If the standard of living for employees in rural industries be below that of employees in non-rural industries, the door of opportunity will eventually be sought through those other industries, and agriculture will be temporarily, if not permanently, robbed of the assistance that it can not well spare.† It is not to be overlooked that the minimum wage rates of the State provide only for the "normal requirements of a member of a civilised community," and any savings appropriated to capital out of such wages represent, in the case of the married man with a family of two dependent children, the acceptance of conditions below those fixed as the standard for the State, or self-denial of a peculiarly severe kind.

* See Appendix No. 1—Memorandum of D. T. Sawkins, at p. 28.

† Cf. Agricultural Economics, H. C. Taylor, pp. 102, 168, &c.

Some evidence has been tendered to the Board upon the conditions of the rural industries and of their ability to bear additional burdens in wages, and the probable effect of the same upon production. The Board has not, however, had very substantial help under these heads from the formal representations of the parties before it. The difficulties of the task of elucidating the relations of the wage and other conditions of rural industries and their productivity have, no doubt, accounted for the meagre assistance which the Board has been offered in this connection. The Board has fortunately been able to help itself to acquire facts and figures which establish certain definite tendencies in the rural industries, and by them it has to be content to be guided when reporting its conclusions upon the evidence with respect to the burden of wages and its consequences in rural affairs.

Upon the subject of existing wage rates there is a good deal of uncertainty. Each district of the State, and each of the different sections of the rural industries in a district may have its own wage conditions. This anomaly is, to some extent, explained by the fact that the employees in the various sections are neither numerous, nor organised, nor dependent for their wage rates upon a wage-fixing authority. Again, a large proportion of those who are employed in each section are employed under living-in conditions, that is, receive board and lodging as part of their remuneration, and as there is no recognised standard of accommodation of this kind, the wage rates largely include an indeterminate element which makes comparison of wage values impracticable.

In a survey made by the Board in the year 1919 of the conditions of employment provided by 178 farmers, graziers, dairy-farmers and orchardists in the Northern Tableland, the North Coast, the South-western Slope, and the Western Slope districts of the State, certain information was gathered which is now referred to. The survey was based upon a questionnaire in the form of Appendix No. 2 hereto, and the enterprises investigated were taken at random. Committees of members of the Board collected and recorded the information gained. The conditions of 435 permanent employees, or an average of 2.4 per enterprise, and of 736 casual employees, or an average of 4.1 per enterprise, were reported upon by those, principally employers, with whom the investigators came into touch. One hundred and thirty of the employers had experience of rural work extending over twenty years, thirty-four had experience of ten and less than twenty years, seven had experience of less than seven years' duration, and seven had an unspecified length of experience.

A summary of the results of the tabulation by the Government Statistician of the information collected in the course of the survey appears as Appendix No. 3 hereto, and it will suffice to indicate here only the more salient facts. In the Northern Tablelands district the average wage paid in money by fifteen employers to their thirty-two permanent hands was 35s. 7d. per week, and to their thirty-nine casual hands 9s. 6d. per day. In the case of the permanent class the wages were generally supplemented by keep, *i.e.*, unstandardised lodging and food. Two-thirds of such employees received no privileges or payments in kind as distinct from keep, and the concessions made to the others were of a comparatively insignificant order.

In the North Coast district the wage rates of the sixty-three permanent hands varied from 7s. 6d. to 15s. per day and from 17s. 6d. to 40s. per week; and the wage rates of the thirteen casual employees from 7s. to 14s. per day, the average being 9s. 6d. per day. Concessions included milk, vegetables, butter and eggs, fruit, and a run for a horse, but were of slight value, and not general. On the South-western Slopes the average weekly wage paid to permanent hands was about 34s. 6d. with keep, and from 48s. to 60s. without keep; and casual employees received from 8s. to 10s. per day. In this district the great majority of the employees received some concession averaging in value in the case of married males to 6s. 7d. per week. In the Western district the average weekly wage paid to permanent general hands was about 33s. 6d. per week with keep, or 54s. without keep, and the weekly wages of harvest hands varied from 54s. to 60s. with keep, and of threshing-machine hands from 48s. to 60s. with keep. Orchard hands in this district were paid an average wage of 8s. without keep. The concessions to married male employees in this district were fairly general, and of an average value of 4s. per week.

Information collected as to the conjugal condition of permanent employees between the ages of 21 and 60 years, showed that 45 per cent. were unmarried, and 55 per cent. married, and that the average family per married male was nearly 2.2, and the average family per male of the ages stated less than 1. Eight employers in the Northern Tablelands district provided houses for fifteen of their married employees, and three employers had such employees living in their homes. Particulars of the house accommodation provided in this district were not specified. In the other three districts employees were found in fifty-one cases to be living in houses of one room, in ten cases to be living in houses of two rooms, and in ten cases to be living in houses of three rooms, in fourteen cases to be living in houses of four rooms, in fifteen cases to be living in houses of five rooms, in three cases to be living in houses of six rooms, in four cases to be living in houses of seven rooms, and in one case to be living in a house of eight rooms. Thirty-nine employees in the three districts were provided with quarters, eighteen were provided with one room in the employer's house, one was provided with two rooms in the employer's house, twenty were provided with huts, seven with tents, two with accommodation in barns, and one with a canvas room.

No estimates of cost were given in the information supplied for the Northern Tablelands district with respect to board or rations and lodging or shelter. In the North Coast district the value of keep was estimated at from 20s. to 25s. per week. In the South-western district the average weekly value of board for single men between 20 and 60 years of age was assessed at 20s., and the average weekly value of lodging or shelter for the same class at between 3s. and 4s. In the Western district the average weekly value of board for single men between 20 and 60 years of age was assessed at between 17s. and 18s., and the average weekly value of lodging or shelter for the same class at between 2s. and 3s.

From a general assessment of the value of the remuneration paid to the various classes of permanent employees covered by the survey, it appears that, including all forms of consideration, the earnings of such employees

when of the age class from 21 to 59, inclusive, stood approximately at from 9s. to 11s. per day, or from 54s. to 66s. per week. This deduction is by no means exact, and, because of some confusion between casual or seasonal and permanent wage rates, must be rather above than below the actual average rates paid.

The history of agricultural wages and their relation to the wages of craftsmen and food-prices has been traced over the period from 1823 to 1920 in an important statistical memorandum placed before the Board in the course of its inquiry by Mr. D. T. Sawkins. The memorandum is attached hereto as Appendix No. 4. The sources of the information contained in the memorandum are the statistical publications of the State and the Commonwealth, and supplementary matter supplied by the State Statistician. The conclusions of the memorandum may be adopted as showing fairly the trend of wages and prices in the years treated, and they are now stated. The first table shows the average wages of craftsmen, navies, and rural workers during each year from 1823 to 1920. The second table shows the average wages of these classes over five-yearly periods, and in a parallel column the cost of a simple food unit containing about enough nutriment to support an average unit of the population for a day. This table shows clearly the tendency of the wage and the cost of food to rise or fall together. Thus during the years 1846-50 craftsmen's wages averaged 5s. a day, while the price of the food unit was on the average 63d. Then during the years of the gold fever the average was 14s. a day and the average price of the food unit rose also to 11d. During the five years 1866-70, by which time the average wages of craftsmen had fallen to 9s. 3d. a day, the price of the food unit had fallen to 77d. The rises or falls are, of course, not proportional. Indeed it is the variation from proportionate correspondence between wages and prices which measures variations in the standard of comfort.

The most striking feature of these conclusions from the immediate point of view is the ratio of the increase in the wages of farm labourers. Reducing all of the data, as Mr. Sawkins has done, to index numbers, it is found that the ratio of the weekly money wages of farm labourers to the daily wages of craftsmen and non-rural labourers during the period from 1871 to 1920 stands as follows:—

Period.	Index Numbers of Nominal Wages of—			Index Number of Cost of a Simple Food Unit.	Ratio of Weekly Money Wages of Agricultural Labourers to Daily Wages of—	
	Craftsmen.	Labourers and Navies.	Agricultural Labourers.		Craftsmen.	Labourers and Navies.
*1871-1875	100	100	100	100	1.37	1.90
1876-1880	109	102	112	118	1.41	2.09
1881-1885	114	114	128	115	1.53	2.12
1886-1890	104	114	124	114	1.63	2.07
1891-1895	93	94	100	100	1.47	2.03
1896-1900	94	92	104	90	1.52	2.17
1901-1905	104	100	128	128	1.68	2.44
1906-1910	109	104	148	131	1.81	2.72
1911-1915	121	123	169	153	1.91	2.62
1916-1920	146	156	240	226	2.25	2.93

* Taken as standard period.

In the same period, significantly enough, the total population of the State quadrupled, while the rural population increased only by 65 per cent. The cause of the rates of wages as thus shown is at once suggested. Agricultural wages are in competition with wage rates in non-rural industries, and the efficiency of the agricultural wage rates must be maintained if agricultural enterprise is to depend to any appreciable extent upon employed labour. This position has already been emphasised.

Mr. Sawkins tentatively derives effective wages by expressing nominal wages in terms of the price of the food unit. He thus places side by side with his table of index numbers of nominal wages a table of index numbers of all wages translated into multiples of the weekly food unit. The assumption upon which this table is founded is that the price of a unit of food is a satisfactory guide to the general purchasing power of money. Portion of this table is also reproduced.

Period.	Index numbers of Effective Wages of—			Multiples of Cost of Weekly Food Unit of 21,000 Calories in—		
	Craftsmen.	Labourers and Navies.	Agricultural Labourers.	Weekly Wages of—		Weekly Money Wages of Agricultural Labourers.
				Craftsmen.	Labourers or Navies.	
1871-1875	100	100	100	13.9	10.0	3.2
1876-1880	92	86	95	12.9	8.6	3.0
1881-1885	99	99	111	13.7	9.9	3.5
1886-1890	91	100	109	12.8	10.0	3.5
1891-1895	93	94	100	12.9	9.4	3.2
1896-1900	104	102	116	14.5	10.2	3.7
1901-1905	81	78	100	11.4	7.8	3.2
1906-1910	83	79	113	11.7	7.9	3.6
1911-1915	79	80	110	11.0	8.0	3.5
1916-1920	65	69	106	9.0	6.9	3.4

* Money wages only.

This table shows that, whereas the non-rural employees suffered a decline in the standard of life to which they had attained in 1875, the agricultural employee not only maintained, but slightly advanced, his standard of life. Since 1891 average effective wages have suffered a decline by index numbers from 100 in that year to 82 in the year 1920. In the same period nominal wages as a whole increased by 73 per cent, but the nominal wages of agricultural employees increased by 102 per cent.

The rates of payment applicable to casual or seasonal workers in the various sections of the rural industry are generally regarded as being in excess of what has been fixed as the rate of the living wage in non-rural industries. Some consideration of such rates appears, however, to be necessary.

In the pastoral industry information as to the rates prevailing since the year 1907 is to be found in the judgments and awards of the Commonwealth Court of Conciliation and Arbitration. The then existing rates for shearing were £1 per hundred, and hut accommodation, the shearer finding himself in

rations and cook.* The actual earnings at the rate stood, by rough approximation of averages for New South Wales, at £3 a week gross, from start to finish of the shed; or, deducting the average expenses attaching to his equipment (2s.), £2 18s. net.† These rates had applied almost universally throughout New South Wales for some twenty years.‡ In 1902 by agreement between the New South Wales Pastoralists' Union and the Machine Shearers and Shed Hands' Union, wool-rollers, piece-pickers and penners-up were paid 30s. per week and keep, and all other shed hands 25s. per week and keep.§ In 1903 the same parties conferred and modified the agreement so as to provide payment at the rate of 27s. 6d. per week with rations for wool-rollers and piece-pickers, 25s. per week with rations for penners-up, and 22s. 6d. per week with rations for all other shed hands.¶ These rates prevailed generally until 1907. By an award of the 20th July, 1907, the Court mentioned prescribed the following rates for New South Wales:—Shearers 24s. per 100 shorn of flock wethers, ewes, and lambs (with increasing rates for rams over 6 months old, and stud ewes), subject in the cases where the employer found rations to a reduction of 3s. 3d. per 100 sheep shorn; and shed hands when wool-rollers, piece-pickers, and penners-up 30s. per week with rations, otherwise if over 18 years of age, 27s. 6d. per week with rations, but in either case if they "found" themselves the wages were to be increased by 13s. per week. Rates were also fixed for cooks and wool-pressers above the minimum adopted in the case of shed hands.‡

In 1911 the Court again dealt with the rates for the same classes of labour, and determined, when fixing piece-work rates for shearers, to adopt what would enable an average shearer to earn such wages per week as would be the just minimum for the shearer to receive if he were paid by time.** The Court proceeded by finding first the basic or living wage—the wage essential for civilised living with a small household—and then adding a wage for skill or special circumstances.†† The Court held that the answer to the question—Can the industry bear the wages which would otherwise be fair—probably ought not to affect the amount of the basic or living wage, but it might, under special circumstances, as where an industry was struggling for existence, be, perhaps, allowed to affect the amount of the additional wage. The rate of 24s. per 100 sheep shorn had produced for the average shearer, the Court concluded, a net return per week of his expedition not exceeding £3.‡‡ Taking the basic or living wage at 42s., the Court added 6s. per week for the time lost and expenses incurred in travelling, and, with the intention of giving the shearer wages equivalent to a time rate of 60s. per week for the expedition, fixed the piece-work rate for flock sheep (wethers, ewes, lambs) at 24s. per 100 where rations were not found, and permitted a deduction from that sum of 15s. in New South Wales where rations were found.§§ In the case of the shed hand, whom it treated as an unskilled worker, the Court said that if 42s. per week were to

* The A.W.U. v. The Pastoralists' Federal Council of Australia and Others, 1 C.A.R., at p. 80. † *Id.* p. 84.

‡ *Id.* p. 92. § *Id.* p. 93. ¶ *Id.* p. 94. †† *Id.* pp. 98-107.

** The A.W.U. v. The Pastoralists' Federal Council and Others, 5 C.A.R., p. 48.

†† *Id.* p. 73. ‡‡ *Id.* p. 78. §§ *Id.* p. 105.

remain as the basic wage in the cities, the adult shed hand should get not less than 48s., because the extra 6s. per week at the very least were required to cover the fares and expenses and time lost in travelling. But for reasons arising out of technical questions of jurisdiction, the Court made the minimum rate for all States 37s. 6d. in cash with rations valued at 10s. per week.* Rates in excess of the shed hands' rates were also fixed for cooks at shearing sheds, wool-pressers, wool-scourers.†

In the year 1917 (28th June, 1917), the same Court again made an award for the pastoral industry. It found that there had been an increase of 51·4 per cent. in the cost of living, and it increased the rate for flock sheep from 24s. to 30s. per hundred shorn, with corresponding increases in the associated rates. In 1911 the deduction for keep in New South Wales had been fixed at 15s. per week, and it was now fixed at 20s. per week. By this award shed hands and wool-scour hands were given a wage of £3 per week with keep, and overtime rates at time and a half for the first two hours and double time thereafter. Minimum rates of a higher order were also prescribed for wool-pressers and cooks.‡ The award related only to employees who were members of the A.W. Union, and it defined, *inter alia*, the term "keep." For its purposes "keep" meant good and sufficient living accommodation, and good and sufficient rations, cooked (so far as cooking was necessary) by a competent cook, but in the case of station hands it did not include accommodation under a roof or cooking when the circumstances rendered such accommodation or cooking impracticable.§

This award was varied by the Court as from the end of November, 1918.¶ The margin of 15s. per week between the "found" rate and the "not found" rate for station hands having proved to be too small, it was increased to 21s.; the "found" rate being fixed at 42s., and the "not found" rate remaining at 68s.

A further variation of the rates for station hands was introduced by the Court as from the 12th June, 1920.‡ The minimum rates were raised, in the case of adults, other than boundary-riders, to 72s. per week, without "keep," or 48s. per week, with "keep," and in the case of adult boundary-riders to 64s. per week, without "keep," or 40s. per week, with "keep."

In the year 1920 (12th April, 1920), the same Court made an award covering the citrus and other fruit-growers of New South Wales. The industry had not previously been regulated by any State tribunal, and the conditions of labour were varying and chaotic.** The Court prescribed 69s. per week for adult male employees, other than casual or seasonal employees, basing its determination upon the current cost of living, and 72s.

* A.W.U. v. The Pastoralists' Federal Council of Australia and Others, 5 C.A.R. p. 96. † *Id.* pp. 105-107.

‡ A.W.U. v. The Pastoralists' Federal Council of Australia and Others, 11 C.A.R., at pp. 427-431. § *Id.* p. 433.

¶ A.W.U. v. The Pastoralists' Federal Council of Australia and Others, 12 C.A.R., at p. 636.

** A.W.U. v. The Pastoralists' Federal Council, 1920. Not yet reported.

** A.W.U. v. W. Arthur and Others, No. 30 of 1919, Comm. Arbitration Court.

per week* for ordinary casual employees of the same class, engaged in or in connection with harvesting, pruning, and packing or forwarding operations. Employees were in this case again the members of the A.W. Union.

The rates that have been adopted for seasonal or casual work done by employees in the cereal and other farming sections of rural industries have not so far been prescribed by awards of any industrial tribunal. There is, nevertheless, some evidence available as to predominant practice in this connection during the past years.

The productive efficiency of the industries of the State has been made the subject of statistical treatment by the Board's statist. The average annual production in New South Wales of pastoral, agricultural, and dairy products is thrown into a misleading light when money value statistics only are used, and it has, therefore, been the Board's care to direct its attention to quantity statistics also. Taking pastoral, agricultural, and dairying production by quantity statistics it is found that, when the average of the five years 1909-13 is compared with the average of the five years 1915-19, the production of cereal crops increased in the latter period by about 17 per cent. Production of potatoes decreased by 54 per cent., of wool by 22 per cent., and of wine by 27 per cent., but production of bacon and hams has increased by 13.5 per cent., and of cheese by 23.5 per cent. The production of butter shows a slight decrease of 2.0 per cent.† This record of production is more significant when it is reviewed in the light of the meteorological data of the periods compared, and with due attention to the disturbing influences of the demands of the war.

A highly important statistical table has been prepared by the Government Statistician according to a schedule designed by the Board's statist. This table appears as Appendix No. 5 hereto. The table shows details of the improvement in the butter-making quality of milk during the period from 1904 to 1919. Milk regarded as raw material for producing butter improved by about 3 per cent. in the period from 1909 to 1913, as compared with the period 1904 to 1908, and by about 7 per cent. in the period 1915 to 1919, as compared with 1909 to 1913. There was a parallel improvement in the cheese-making quality of the milk. The improvement in the quality of milk from both aspects combined is of distinct importance. The actual yield of milk in gallons during each year of the period 1904 to 1919 is shown, as is also what may be termed the equivalent yield of milk during each year, the quality of the milk being regarded as constant throughout. Thus a decrease in the average apparent yield of nearly 3 per cent. between the last two five-yearly periods seems, owing to the improvement of 7 per cent. in the quality, to be really an increase of about 4½ per cent.

The Government Statistician has also supplied a table† showing the increase during the last twenty years in the weight of wool per sheep shorn in New South Wales. During the five years 1898-1902 the average greasy

* The limit fixed by considerations of jurisdiction. (See A.W.U. v. W. Arthur and Others, No. 30 of 1919, Comm. Arbitration Court.)

† See Appendix No. 6.

‡ For fuller statement see Report of Royal Commission of Inquiry into the Proposed Reduction of the Standard Working Week from 48 to 44 Hours, 1919; Appendixes p. 33.

fleece weighed 5.82 lb. During the five years 1915-19 the average weight was 7.18 lb. The average money value of the fleece has increased by 117 per cent. between the two periods referred to.

In sum and in effect the evidence with regard to the conditions of the rural industries and their ability to bear additional wage burdens, although conflicting, is, in its main current or general trend, favourable to the imposition of a general industrial wage rule in the rural industries.

THE DETERMINATION OF THE BOARD AS INFLUENCED BY THE TERMS OF THE STATUTE.

It is the Board's duty, as prescribed by section 79 of the Industrial Arbitration Act, 1912-19, "from year to year, after public inquiry as to the increase or decrease in the average cost of living," to declare living wages for adult male and female employees. In the process of this work, the Board must deal separately with the question of the cost of living of employees engaged in rural occupations, and must, if it makes a declaration affecting such lastmentioned employees, separate those employees from adult male and adult female employees generally. In its separate public inquiry preceding the declaration of living wages to be paid to adult employees in rural occupations, the Board must take evidence upon the conditions of the rural industries and their ability to bear additional burdens in wages and the probable effect of the same upon production. The Board must also report its conclusions upon such evidence. The Board may refrain, if it thinks fit, from making a declaration of the living wages to be paid to adult employees in rural occupations. If it does not refrain from making that declaration, it must, in its declaration, give weight, as far as is reasonable, to its conclusions upon the evidence disclosing the conditions of the rural industries, their ability to bear additional wages, and the probable effect of wage burdens upon production.

In executing its living-wage fixing function in relation to adult male and female employees not engaged in rural occupations, the practice of the Board has been to pass under review the statistics of the average cost of living of the people of the State. The average cost of living so ascertained is a general average, and it is, at the least, weighted by the conditions of all classes of those who are engaged in rural occupations. The non-rural living wage is thus regarded as a wage which should, by the terms of the statute, be related to the widest possible basis of social usage. The statute clearly indicates, however, that the basis of the living wage for employees engaged in rural occupations must be something different. The Board must, under it, make a separate public inquiry into the cost of living of employees engaged in rural occupations as distinct from its investigation of the average cost of living of the community; and whereas the living wage to be declared with respect to adult male and female employees not engaged in rural occupations must be related to the average cost of living, the living wages to be paid to employees engaged in rural occupations must be related to the norm to be ascertained by the separate process of inquiry. It must, therefore, be inferred that the living-wage of adult rural employees is intended by Parliament to be a wage that does not reflect the proportions

of the first-mentioned wage. Apart, then, from the considerations due to the "conditions of the rural industries and their ability to bear additional burdens in wages and the probable effect of the same upon production," the Board must, in fixing the rural wage, be guided by factors and principles which are independent of those influencing its determination of the non-rural living wage. So it appears that if the conditions of rents or any of the other elements in the rural cost of living make the total of that cost of living lower than the total of the average cost of living, the rural living wage must be related to a lower monetary standard than the non-rural living wage, and may, perhaps must, be absolutely and relatively a lower wage. Had it not been for these considerations the Board probably would not have hesitated early in the year 1921 to extend the wage declared in October, 1920, to the rural industries, subject to such deductions as might appropriately be made from such wage for board or residence or board and residence and for any customary privileges and payments in kind conceded or made to rural employees.

The Board is about to open new inquiries as to the increase or decrease in the average cost of living and as to the cost of living of employees engaged in rural occupations. It feels that it cannot safely commit itself to a living wage declaration in relation to employees engaged in rural occupations before those inquiries have been carried out, and it therefore refrains from making a declaration upon the basis of this report. There is now a general tendency towards normality in conditions in rural as well as other industries, and on the completion of the coming inquiries the Board will declare a living wage for rural industries unless it is convinced by what it will hear in the course of those inquiries that it should continue to refrain from doing so.

The considerations and findings which the Board now publishes for the information of those concerned may be taken as a basis for the further action contemplated.

GEO. S. BEEBY, President.
J. B. HOLME, Deputy-President.
W. T. WILLINGTON, }
THOMAS ROUTLEY, } Commissioners.
ARTHUR COOPER, }
T. I. CAMPBELL, }
C. J. McRAE, } Additional
JOHN ANDREWS, } Commissioners.
T. C. ARTHUR, }

7th July, 1921.

APPENDICES.

APPENDIX No. 1.

REPORTS BY STATISTICAL OFFICER. RURAL BREADWINNERS OF NEW SOUTH WALES.

10th November, 1920, and 7th February, 1921.

At the Census 1911 the numbers engaged in agricultural, pastoral and other rural pursuits were as follows:—

TABLE I.
CENSUS of New South Wales, 1911.

	Males.	Females.
Agricultural Pursuits.....	77,600	1,600
Pastoral „	69,700	3,300
Capture of Wild Animals and their Produce.....	2,000	.....
Fisheries	1,500	.....
Forestry	6,400	.....
Water Conservation and Supply	2,400	.....
Total	159,600	4,900

Including males and females, the total is about 165,000 persons. These figures may be compared with the statistics of "Persons engaged permanently in Rural Occupations" which are published annually by the State Statistician. His *Statistical Bulletin* for June, 1920, gives figures for each year since 1909. The following are selected:—

TABLE II.
PERSONS engaged permanently in Rural Occupations in New South Wales.

Year ended 30th June.	Males.	Females.	Total.
1911	126,600	24,600	151,200
1912	129,200	25,200	154,400
1913	127,400	24,200	151,600
1914	128,000	25,400	153,400
1915	122,500	23,800	146,300
1917	116,100	26,100	142,200
1919	113,900	25,600	139,500

These figures exclude those engaged in forestry, fisheries, &c., and mining. Comparing the figures for 1911 in Tables I and II, it is seen that the census shows 147,000 males engaged in agricultural and pastoral pursuits, and the Government Statistician's returns show less than 127,000 males similarly engaged. The difference, about 20,000, is due to the inclusion in the census figures of shearers, harvest workers, and other casual hands whose occupations are mainly rural. The Government Statistician's figures are derived from annual collections with regard to landholders of one acre and upwards, and such employees are expressly excluded.

Comparing the years 1911, 1914, and 1919, it is seen that the males have decreased by 12 per cent. since 1911, and by 11 per cent. since the year ended 30th June, 1914. It would seem, then, that the marked decrease is purely a war effect, and as such will probably rectify itself in the ordinary course of things. Therefore, if an estimate is to be made of the number of employees in rural industries who are likely to be affected by a living wage declared for them, the estimate should be based rather on the pre-war numbers than those relating to the 30th June, 1919.

For this purpose it is necessary to distinguish between the employers, the workers on their own account, the persons assisting but not receiving wages and the wage-earners, who are comprised in the 147,000 males who were recorded at the Census, 1911, as engaged in agricultural and pastoral pursuits. The following table shows the number in each grade, subdivided according to age:—

TABLE III.
Census of New South Wales, 1911.

MALES engaged in Agricultural and Pastoral pursuits enumerated according to grade and age.

Occupation and Grade.	Age Group.					All ages.
	Under 14.	15-19.	20-29.	30-39.	Unspecified age.	
Agricultural Pursuits—						
Employer .....	...	111	15,027	2,672	94	17,904
Working on own account .....	...	172	9,600	2,435	62	12,269
Assisting, and not receiving wages	1,148	4,550	4,644	94	32	10,468
Wage or salary earner	743	5,317	21,822	1,814	286	29,992
Unemployed	5	119	604	96	3	827
Not Specified	23	409	4,612	1,474	71	6,139
Total	1,919	10,678	55,859	8,585	558	77,599
Pastoral Pursuits—						
Employer .....	...	60	11,716	2,178	58	14,012
Working on own account .....	...	81	6,282	1,183	35	7,551
Assisting, and not receiving wages	644	2,500	2,302	53	13	5,512
Wage or salary earner	972	6,262	29,188	2,463	312	39,197
Unemployed	4	100	750	96	3	953
Not specified	4	50	1,837	549	19	2,459
Total	1,624	9,053	52,115	6,492	440	69,724

The table might be extended to those engaged in the capture of wild animals and their produce, in fisheries, in forestry, and in water conservation and supply. It will, perhaps, be sufficient to say that these classes respectively included about 800, 500, 5,000 and 2,000 wage and salary earners of all ages.

Disregarding for the moment those whose grade was not stated or specified, Table III shows that the hired labour force of all ages was about 69,000, and the unemployed nearly 2,000. Of the 69,000 about 51,000 were between 20 and 60 years of age, and some 3,000 of these were in their 21st year. Included in the 69,000 were some 250 farm managers or overseers, 150 agricultural officials, 3,000 station managers, overseers, or clerks, 200 stock and brands officials, and 400 wool classers or sorters. Of these 4,000, about 12 per cent. were either less than 20 or more than 60 years of age. Excluding males of these callings, there remain about 65,000 wage earners, of whom about 48,000 were between the ages of 20 and 60, and about 45,000 were adults under the age of 60.

It is difficult to place the 8,500 "not specified," who form about 6 per cent. of the total. Probably the wage earner would be somewhat more likely to omit details than the employer. Perhaps 9 or 10 per cent. would give a more likely number to add to the number graded as wage earner. The number of adult male wage earners under the age of 60 would then be about 49,000.

The figures still include shearers, harvest workers, and other casual hands whose occupations were rural to such an extent that they were included in the agricultural and pastoral groups of the Census by the Commonwealth Statistician. The State Statistician numbers there at between 20,000 and 30,000. The proportion of members of these

itinerant classes, whose ages lay between 20 and 60, would be considerably greater than in the case of the permanent farm or station hands. Therefore, using the Census figures, it would appear that roughly 30,000 adult males under the age of 60 were permanent wage-earning employees on farms and stations. The following table forms an attempt to summarise the foregoing facts and suggestions:—

TABLE IV.
ROUGH Estimate of Constitution of Male Agricultural and Pastoral Breadwinners of New South Wales at Census 1911.

	Adults under 60 years of age	Others.	Total.
Employers	28,000	5,000	33,000
Workers on own account	17,000	4,000	21,000
Salary earners	3,500	500	4,000
Wage-earners, permanent hands	30,000	19,000	49,000
Wage-earners, casual hands (including shearers and harvest workers)	19,000	2,000	21,000
Unemployed	2,000	...	2,000
Persons assisting	6,500	10,500	17,000
Total	106,000	41,000	147,000

In addition to the wage earners included in Table IV, there are those engaged in the capture of wild animals and their produce, fishing, forestry and water supply referred to above, some of whom would doubtless be affected by a declaration of the living wages to be paid to rural workers.

As regards female wage earners, Table I shows that their number is comparatively small. The State Statistician explains the large numbers shown in Table II as follows: "In agriculture and in the dairying industry large numbers of females are returned as engaged in those industries. These females, however, are only partly employed, the greater part of their time being devoted to domestic duties."

It is impossible to split up the estimated 30,000 adult wage earners under the age of 60 among the various sections of rural enterprise. The following schedule will show how the figures are affected by overlapping of the sections:—

TABLE V.
MALES in Rural Occupations in New South Wales.

Commonwealth Census Returns of Males Engaged.		Annual Returns by State Statistician of Males Permanently Engaged.		
Industry.	Number in 1911.	Industry.	Number in 1911.	Number in 1918.
Farming	65,267	Cultivating	57,491	47,858
Market gardening	4,765			
Fruit growing	3,729			
Horticulture	1,791			
Miscellaneous crops	790			
Agricultural officer	122			
Others	1,112			
Total	77,599	Total	57,491	47,858
Pastoral	43,881	Pastoral	40,008	40,988
Dairying	23,230	Dairying	27,449	21,071
Poultry	1,191	Poultry		
Pigs	100	Pigs	1,600	2,632
Bees	274	Bees		
Wool classers	371			
Stock officer	187			
Others	755			
Total	69,958	Total	69,057	64,691

One might hastily infer by comparing the totals for the first group that there were in 1911 about 20,000 persons casually engaged in agricultural pursuits, and by comparing "Pastoral" together with "Wool classers" and others, that there were more than 4,000 persons casually engaged in pastoral pursuits. But by comparing "Dairying" it appears 4,000 odd must be deducted from the 20,000 and the 4,000 just mentioned, and it is impossible to say in what proportions. There is room here for improved co-ordination by the Commonwealth and State Statisticians. Perhaps, too, there are sources of knowledge available to the additional Commissioners of the Board as representatives of associations of enterprisers or of employees in primary production, which, if tested, would throw some light on the relative numbers of permanent and casual hands engaged in the various rural occupations.

In Table III the numbers in each grade have been given according to age for the two groups, "Agricultural" and "Pastoral," the latter of which includes "Dairying." Similar details are not available for the sections of these groups in the case of the different States, but they are given by the Commonwealth Statistician for the Commonwealth as a whole. The following table shows these details arranged as percentages applicable to the Commonwealth. There is no doubt that the percentages in this State would be very like these.

TABLE VI.

PERCENTAGES according to Grade of Occupation of Males engaged in various sections of Rural Occupations in the Commonwealth at Census, 1911:—

Grade of Occupation	Percentage of all Males engaged in the Industry of—						
	Farming.	Orchard-ing.	Market Garden-ing.	Horti-culture.	Grazing.	Dairying.	Poultry Raising.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Enterprisers—							
Employing hired labour.....	28	25	20	13	20	26	13
Not employing hired labour.....	16	20	29	19	6	22	62
Persons assisting—							
Adults under age 60	8	4	2	1	2	7	2
Others	7	4	2	2	1	9	3
Salary earners	*	*	*	*	7	*	*
Wage earners—Adults under age 60.....	27	31	35	44	47	19	12
Others.....	14	16	12	21	17	17	8
Total	100	100	100	100	100	100	100

* Less than ½ per cent.

APPENDIX No. 2.

N.S.W. BOARD OF TRADE

1919.

RURAL SURVEY.

- Name..... Owner, Manager, Employee.
(Strike out wrong classification.)
- Full Address
- Business
- Experience
- Tenure and Use of Land.....
- Hands employed during past year:—Permanent..... Casual.....
- Character of provisions of—
Board.....
Rations.....
Lodging.....
Other Shelter.....
- Name and conditions of privileges or payments in kind, n.e.i.....
- How are wages paid?.....
- What are the ruling district rates of wages?.....
- Are wages of constant hands payable:—
(a) for holidays taken?.....
(b) for intervals of involuntary idleness?.....
(c) for wet days?.....
- What holidays are granted?.....
- To what extent have wage rates varied since beginning of war?.....
- Can you produce records or accounts evidencing the cost of living?.....
- Weekly cost (a) per adult employee to employ; (b) for whole family in the case of a married employee, of:—
Groceries..... Vegetables.....
Bread..... Boots.....
Milk..... Clothing & Drapery.....
Meat..... Other Items.....
- Estimate the percentage by which costs have increased (a) during past 12 months; (b) during the period of the war, of:—
Housing (a)..... (b).....
Domestic Equipment (a)..... (b).....
Food (a)..... (b).....
- In what respect has the dietary of employees varied during the period of the war?.....
- Will you undertake to keep records of the cost of living?.....
- Will you give evidence on oath?.....

Name of Employee, with particulars of his family.	(20)	Occupation and whether permanent or casual.	Age.	Married or Single.	Period Present Em- ployed.	Locality and Character of Shanty.	Total hours of labour per day or week.	Wage- time received during year.	Weekly Value of—						Other Income.	
									Board.	Rations.	Lodging Shelter.	Privileges or r.a.s. kind, n.s.t.	Money Wages.	Total.		
		(21)	(22)	(23)	(24)	(25)	(26)	(27)	s. d.	s. d.	s. d.	(30)	(31)	(32)	(33)	(34)
									s. d.	s. d.	s. d.				s. d.	s. d.

APPENDIX No. 3.
[Report by Statistical Officer.]
RURAL SURVEY, 1919.

SUMMARY OF RESULTS OF TABULATION BY GOVERNMENT STATISTICIAN.

1. The Government Statistician in forwarding on the 14th November, 1919, the tabulation of the Rural Survey cards makes the following observations:—

As you will see from the tabulation, the results do not appear to be very satisfactory, as the cards were not filled in carefully, a large proportion of the headings being "not stated."

Under headings 10 and 12, the actual particulars returned are shown, as it was very difficult to deduce satisfactory averages from them.

2. *Numbers of Employers and Employees in Districts.*—The employers visited were farmers, graziers, dairy-farmers, and orchardists. The numbers of businesses and permanent and casual employees in each district were as follows:—

District.	Number of Business.	Number of Employees.	
		Permanent.	Casual.
North	27	32	39
North Coast	30	66	19
South-west	65	201	366
West	56	136	312
Total	178	435	736
Average .....	...	2.4	4.1

3. *Experience of Employers.*—The length of experience of the employers in their occupations was as follows:—

Experience.	Number of Employers.
Less than 10 years	7
Over 10 and less than 20 years	34
Over 20 years	130
Not stated	7
	178

4. *Nature and Frequency of Privileges and Payments in Kind.*—A classification of nature and frequency of the privileges or payments in kind is shown in detail in the following schedule:—

It will be noted that two-thirds of the employees in the Northern districts received no privileges or payments in kind, and the concessions to the others were of a comparatively insignificant order. In the North Coast district, run for horse was given in 3 cases, the same privilege together with milk in 3 cases, and in 2 cases butter and eggs were given. There were 11 cases where vegetables and milk, and 2 cases where foodstuffs were provided. In the North Coast district, 10 per cent of the employees received no privileges or payments in kind current on the North Coast were of but slight value. In the South-west and West districts the great majority of the employees received some concession, and the privileges and payments in kind were often of a very substantial character. The average value of the privileges and payments was calculated at 10 shillings per week in the South-west, 12 shillings in the West, and 7d. per week in the former, and 4s. per week in the latter district. 2. More details are given on page 36.

5. **Periodicity of Wage Payments.**—Weekly, fortnightly, and monthly payments were of about equal frequency, both for permanent and casual employees. On the whole, however, payments were most frequently made as required. The following table shows the figures in somewhat greater detail:—

Period of Payment.	Number of Employees (Permanent and Casual).			
	North.	North Coast.	South-west.	West.
Weekly, fortnightly, or monthly	10	37	63	245
Quarterly	3	.....	.....	5
When required	12	12	500	198
Not stated	46	13	.....	...
Total	71	82	563	448

6. *Ruling District Rates of Wages*—The ruling rates given for general farm hands are as follows:—In the North, sixteen employers gave rates for permanent hands varying from 30s. to 40s. per week, and in the case of one lucerne farmer, 53s. per week, these amounts being the actual money wages paid, and being generally in addition to keep. The average, excluding the lucerne farmer, was 35s. 7d. per week. The rates for casual hands varied from 8s. to 18s. per day. In the West, the rates for permanent hands were 30s. to 40s. per week, the average being 35s. 7d. per week. Weekly rates were quoted at from 17s. 6d. to 40s. per week. Four rates for married couples were quoted, viz. 29s. per annum, 47s. 6d. per week (£123 10s. per annum full time), £18 8s. per month (£221 1s. per annum full time), £23 10s. per month (£285 10s. per annum full time), and 42s. 6d. per week (£170 10s. per annum full time). The average of the rates quoted varied from 30s. (£360 per annum full time) to 48s. 6d. (£583 10s. per annum full time). In the South-west district the rates varied from 30s. and keep to 40s. and keep, the average quotation being about 34s. 6d. Without keep the rates given were 48s., 50s., and 60s. Casual employees were paid from 8s. to 10s. per day. In the West district, rates with keep for general hands ranged from 30s. to 48s. per week. In the South district, rates with keep for general hands ranged from 30s. to 40s. per week. In the North district, the average of the quotations being nearly 54s. Orchardists' hands were paid from 7s. to 9s. per day, the usual figure being 8s. without keep. The following rates were also given in the West district:—

Harvest hands.....	54s. to 60s. and keep.
Threshing machines.....	48s. to 60s. and keep.

7. *Variation in Wages since beginning of War.*—In the North the average increase was given as 22 per cent.; in the North Coast as 42 per cent.; in the South-west as 8s. per week; and in the West as 9s. 1d. per week.

8. *Employers who pay for Holidays taken, Involuntary Idleness, and Wet Days.*—

		North.	North-East.	South-west.	West.			
	Em- ployers affected	Em- ployers affected	Em- ployers affected	Em- ployers affected	Em- ployers affected			
Payment for Holidays taken—								
Yes	17	51	22	52	57	149	50	121
No	10	20	6	6	8	48	6	15
Not stated	10	20	6	6	8	48	6	15
Total	27	71	30	68	65	197	56	136
Payment for Involuntary Illness and								
Yes	2	3	13	37	62	196	56	136
No	15	48	4	15	2	1	...	...
Not stated	10	20	13	16	1	...	...	...
Total	27	71	30	68	65	197	56	136

p. Holidays granted.—In the North district one employer stated that he gave his employees fourteen days during the year. No other employer gave information. In the North Coast district one employer gave holidays as the public service provides. No other employer gave information. In the South-west district 63 out of 65 employers gave "any reasonable time," 4 gave twelve days annually, 1 the Christmas holidays, 2 gave eight to ten days, 1 gave one day, and 4 gave no information. In the West district 28 gave "any reasonable time," and 28 gave various periods from the Christmas holidays or four or five days up to fourteen days.

Excluding the indefinite description, "any reasonable time," the West district showed by far the most liberal concessions of this kind.

The information under this heading may be considered in connection with that given under the preceding, which shows that payments for holidays, involuntary idleness, and wet days, were made almost universally in the West district, in the majority of cases in the South-west and North Coast districts, and far less liberally in the North district.

10. *Conjugal Condition and Age of Permanent Employees.*—In all districts information was given with regard to 166 single employees and 181 married employees. Practically no information in regard to age was given in the North district. The information given has been combined for all districts as follows:—

AGE and Conjugal Condition of Permanent Employees.

Age.	Number of Permanent Employees.	
	Single.	Married.
Under 14.....	1	.....
14-17.....	6	.....
18-20.....	21	1
21-24.....	20	4
25-34.....	38	40
35-44.....	25	51
45-54.....	20	40
55-60.....	12	8
60 and over.....	7	12
Not stated.....	16	25
21-59.....	115	143
All Ages.....	166	181

Thus it appears that nearly 45 per cent. of the permanent employees between ages 21 and 60 were unmarried.

11. *Families.*—The ages of the children were not given on the cards for the North district, nor in 45 per cent. of the cases on the cards for the West district. The information, where stated, has been combined for all districts as follows:—

Number of Children under 14 in Family.	Number of Married Permanent Employees.	Total Number of Children.
0.....	24	.....
1.....	30	30
2.....	26	52
3.....	19	57
4.....	19	76
5.....	12	90
6.....	2	12
Not stated.....	35	.....
Total stated...	132	287

The average family per married male was, therefore, nearly 2.2, and, using the figures of the preceding paragraph, the average family per male between ages 21 and 60 was less than 1, and the average family per male of 18 years and over was less than 0.8.

12. *Period of Employment with Present Employer.*—The period of employment with present employer was, the figures show, not dependent to a large extent on conjugal condition. The figures are summarised as follows:—

Period of Employment.	Number of Permanent Employees.	Percentage on total.
Under 1 year.....	86	25
1 year.....	41	12
2 years.....	57	17
3 years.....	36	10
4 years.....	25	7
5-9 years.....	40	14
10 years and over.....	35	10
Not stated.....	18	5
Total.....	347	100

13. *Distance of Employee from Occupation.*—Negligible information.

CLASSIFICATION of Housing or other shelter provided.

Kind of Shelter.	Number of Employees.			
	North.	North Coast.	South West.	West.
House.....	3	...	...	39
1 room.....	...	24	...	27
2 rooms.....	...	5	...	5
3 ".....	...	7	...	3
4 ".....	...	5	...	1
5 ".....	4	10	1	1
6 ".....	...	1	...	2
7 ".....	...	4	...	...
8 ".....	...	1	...	...
Quarters.....	...	6	26	7
1 room in employer's house.....	1	...	...	17
2 rooms in employer's house.....	...	...	...	1
Hut.....	...	3	...	17
Tent.....	...	3	...	4
Barn.....	...	...	...	2
Canvas room.....	1	...	...	...
In course of erection.....	...	...	...	1
Nil.....	7	...	...	6
Not stated.....	...	...	...	10
Total.....	27	92	143	...

14. *Hours Worked.*—North District.—Hours given in one case only, viz., 48 hours per week.

North Coast District.—Twelve employees worked 48 hours per week, one worked 53, one worked 72, two had no fixed hours, and the rest are classed "not stated."

South-west District.—It was stated that seventeen employees worked less than 48 hours, 110 employees worked 48 hours, twenty-five worked 50 hours, eleven worked 52, sixteen worked 54 hours. The average weekly period worked was 48.7 hours. No information was given for 6 per cent. of the employees.

West District.—It was stated that eight employees worked less than 48 hours, seventy-nine worked 48 hours, one worked 49 hours, forty-two worked 50 hours, and twelve worked from 52 to 56 hours. The average weekly period worked was 48.9 hours. No information was given for 6 per cent. of the employees.

15. *Wage Time lost During the Year.*—For the North and North Coast, no information was given. In the South-west and West districts, time was lost in the case of five employees out of 287 stated. The period varied from fifteen to 44 days. There were also 5 who lost time through voluntary idleness.

16. *Average Income.*—In the North district wages are shown, but the value of keep has not been distributed according to the headings.

In the North Coast district the value of keep is said to be 20s. to 25s. per week. From ten employers' cards the average value of keep is 21s. 5d. per week. In the South-west and West districts details are given which have been tabulated as follows:—

TABLE.

Description of Tabulation.	North District.	North Coast District.	South West District.					
			Married.		Single.		Married.	
			Ages.		Ages.		Ages.	
Average of the Weekly value of:-			-21 yrs.	21-40.	-21 yrs.	21-40.	0 and over.	-21 yrs.
			21-40.	41-50.	51-60.	61-70.	71-80.	81 and over.
(28) Board
(29) Rations
(30) Lodging or Shelter
(31) Privileges or payments in kind
(32) Money Wages
(33) Total
(34) Other Income*

* South District.—In one case additional income is obtained by trapping up to £3 1s. per week.
 North District.—(Married) one paid a per cent. of produce; 3s. and 4s. 6d. per employee.
 West District.—(Single) 2s. 6d. and 3s. 6d. per employee; 4s. 6d. and 5s. 6d. per employee.
 North Coast District.—(Married) 2s. 6d. and 3s. 6d. per employee; 4s. 6d. and 5s. 6d. per employee.
 (Single) 2s. 6d. and 3s. 6d. per employee; 4s. 6d. and 5s. 6d. per employee.

APPENDIX No. 4.

13th December, 1920.

REPORT BY STATISTICAL OFFICER.

WAGES AND PRICES OF FOOD IN NEW SOUTH WALES FROM 1823 TO 1920.

The following tables have been prepared with a view to tracing the relation of the wages of agricultural labourers to those of craftsmen, from an early date in the history of New South Wales, until the present time, and for the purpose of comparing wages throughout this period of nearly a century with the cost of a certain quantity of food.

There are certain statistical difficulties in the problem of representing by means of abstract numbers the course of either wages or prices over a long period of time, which cannot be entirely surmounted. It is not possible to represent perfectly by means of abstract numbers the course of the price of a specific quantity of even a single article, or the course of the wage of one particular type of labour over a period of time, unless the qualities of the article or the qualities of the labour of which the price is stated are absolutely constant during the period. Nothing is constant. A bushel of wheat weighs perhaps 56 lb. one year and 62 lb. the next. The average meat eaten about the year 1830 was much inferior to the average meat eaten during recent decades, since refrigeration and cheap ocean transport began, about forty years ago, to make the world one market with universally recognised standards of quality. Even in the early nineties the bulk of the butter consumed was salt, and in times not much farther from our own the commonest quality of moist sugar was usually found on the tables of the people. As regards labour, even if precise information were available with regard to the working day of a wage-earning blacksmith from the earliest times, the nature of his work could not be regarded as constant. His work has been divided as industry has developed. The demand for certain divisions of him has increased and for others diminished.

If such considerations tend to modify the plain arithmetical meaning of a column of figures purporting to represent the course of the price of one article or of one type of labour, how much greater are the modifications of meaning of a column of figures which may pretend to represent the course of prices in general or of wages as a whole. Is it possible to generalise the price of commodities or of labour? Certainly not for those early times with regard to which the data are so meagre. The generalised wage for any year would be the average wage of all labour, found by weighting the wage in each class in proportion to the numbers engaged in that class. For the generalised price of commodities and services might be taken the average price of all commodities and services consumed by an average unit of population, found by weighting each according to the quantity consumed. But services are difficult to measure, and the age constitution of the population varies, so that the average unit is variable. The science of statistics has advanced during the scientific renaissance of our times, but not far enough yet to make it possible to prepare quickly such series of truly representative numbers.

The following tables have been prepared on a simpler and far less satisfactory basis. They have, nevertheless, a meaning. An idea of the trend of wages and prices during the period can be gathered from them. The first column of wages shows the average wages in terms of the currency of the year of four types of craftsmen, viz., carpenters, bricklayers, masons, and blacksmiths, from the year 1823 onwards. The second shows the average wages of labourers and navvies from the year 1872, and the third the average wages of farm labourers from 1823 to 1900, with the exception of the years of the gold fever, for which the wages of this class are not given in the year books. From the year 1901 onwards the wages of boundary riders, milkers, and shearers, are shown as well as those of farm labourers. The sources of this information are the official year books of the State, and for the later years the publications of the Commonwealth Statistician, and supplementary matter courteously provided by Mr. H. A. Smith, the present Government Statistician. Our knowledge of prices and wages during the earlier years of the history of the State is due largely to the research undertaken by Sir T. A. Coghlan. The volumes entitled "The Wealth and Progress of New South Wales," particularly those for 1893 and 1898-9, contain most valuable records.

TABLE I.
WAGES in New South Wales from 1823 to 1920.

Year.	Daily Wages, without board or lodging, of—		Weekly Wages, with board and lodging or rations, of—				Piece rate per 100 sheep.
	Craftsmen (1)	Labourers and Navvies.	Boundary Riders.	Farm Labourers (2).	Milkers.		
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
1823	6 0	...	...	8 8	...	...
1833	6 0	...	...	8 8	...	...
1835	6 9	...	...	8 8	...	...
1836	6 11	...	...	8 8	...	...
1838	6 8	...	...	9 7	...	...
1843	5 0	...	...	5 9	...	...
1844	4 0	...	...	5 9	...	...
1845	4 1	...	...	6 11	...	...
1846	5 2	...	...	7 8	...	...
1847	5 6	...	...	8 10	...	...
1848	5 3	...	...	8 1	...	...
1849	4 9	...	...	6 11	...	...
1850	4 6	...	...	6 11	...	...
1851	6 8	...	...	7 8	...	...
1852	9 0	...	...	10 9	...	...
1853	14 2	...	...	...	...	...
1854	23 9	...	...	...	...	...
1855	16 3	...	...	...	...	...
1856	13 8	...	...	...	...	...
1857	12 9	...	...	...	...	...
1858	10 8	...	...	...	...	...
1859	9 10	...	...	13 5	...	...
1860	10 9	...	...	13 5	...	...
1861	10 8	...	...	13 5	...	...
1862	10 9	...	...	13 5	...	...
1863	9 8	...	...	13 0	...	...
1864	9 4	...	...	11 6	...	...
1865	9 4	...	...	11 6	...	...
1866	9 4	...	...	11 6	...	...
1867	9 4	...	...	11 6	...	...
1868	9 4	...	...	11 6	...	...
1869	8 8	...	...	12 3	...	...
1870	9 8	...	...	12 9	...	...
1871	8 8	...	...	10 9	...	...
1872	9 3	7 0	...	14 0	...	...
1873	10 0	7 0	...	13 0	...	...
1874	10 6	7 0	...	14 0	...	...
1875	10 5	7 0	...	15 0	...	...
1876	11 0	7 0	...	15 0	...	...
1877	10 11	7 0	...	15 0	...	...
1878	10 6	7 0	...	15 0	...	...
1879	10 6	7 0	...	15 0	...	...
1880	10 4	8 0	...	15 0	...	...
1881	10 3	8 0	...	15 0	...	...
1882	11 3	8 0	...	17 6	...	...
1883	11 3	8 0	...	17 6	...	...
1884	11 3	8 0	...	17 6	...	...
1885	11 3	8 0	...	17 6	...	...
1886	10 2	8 0	...	17 0	...	...
1887	10 6	8 0	...	17 8	...	...

(1) Average wages of carpenters, bricklayers, masons, and blacksmiths.
(2) Annual rates quoted in official records from 1823 till 1862. The rates inserted are got by dividing by 52.

TABLE I.—cont'd.

Year.	Daily Wages, without board or lodging, of—		Weekly Wages, with board and lodging or rations, of—				Piece rate per 100 sheep.
	Craftsmen (1).	Labourers and Navvies.	Boundary Riders.	Farm Labourers (2).	Milkers.	Shearers.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
1888	10 4	8 0	...	17 8	...	...
1889	10 4	8 0	...	15 4	...	...
1890	9 6	8 0	...	15 4	...	...
1891	9 10	8 0	...	15 4	...	...
1892	9 8	6 7	...	13 6	...	...
1893	9 3	6 3	...	13 0	...	...
1894	8 10	6 0	...	12 6	...	...
1895	7 8	6 0	...	12 6	...	...
1896	8 8	6 0	...	12 6	...	...
1897	8 10	6 0	...	13 6	...	...
1898	9 0	6 6	...	14 0	...	...
1899	9 4	6 9	...	13 6	...	...
1900	10 2	6 10	...	16 3	...	...
1901	10 3	6 10	17 6	17 6	16 3	20 0	
1902	10 2	6 11	17 6	16 0	16 3	20 0	
1903	10 2	7 1	16 0	16 0	16 3	20 0	
1904	10 0	7 1	16 0	16 0	16 3	20 0	
1905	10 4	7 0	20 0	20 0	16 3	20 0	
1906	10 6	7 1	17 6	17 6	17 6	24 0	
1907	10 6	7 1	17 6	17 6	17 6	24 0	
1908	10 6	7 1	18 9	18 9	17 6	24 0	
1909	10 10	7 5	21 3	22 6	21 3	24 0	
1910*	11 1	7 6	22 6	22 6	22 6	24 0	
1911	11 2	8 6	22 6	22 6	22 6	24 0	
1912	11 8	8 6	22 6	22 6	22 6	24 0	
1913	11 8	8 6	22 6	22 6	22 6	24 0	
1914	11 11	8 6	22 6	22 6	22 6	24 0	
1915	12 2	8 10	22 6	22 6	22 6	24 0	
1916	13 0	9 3	22 6	27 6	25 0	24 0	
1917	13 3	9 6	22 6	27 6	25 0	24 0	
1918	13 5	10 0	38 6	35 0	36 6	30 0	
1919	14 5	12 10	40 0	35 0	36 6	30 0	
June, 1920	17 2	12 10	40 0	35 0	36 6	30 0	

It is regretted that owing to the limitations of time and staff it has not been possible to include a graphical representation of the rates shown in the preceding table. The following table shows the average of the preceding figures for periods, mostly of five years. A further column is included showing the average price during the corresponding period, of 1 lb. of bread, 1 lb. of fresh beef, 1 oz. of butter, 4 oz. of sugar, and 1 lb. of potatoes. This simple composite unit of food has an energy value of about 3,000 calories. It does not, of course, represent the usage of a man throughout the century to which the tables refer, for the usage has varied considerably. Professor Thorold Rogers, in his comparisons of wages during six centuries in England, used for the most part the price of wheat as a standard of reference. Sir Robert Giffen, for comparisons which he made, used index-numbers based on the price of meat on the hoof, and other commodities as well as wheat. Fortunately, we have ready at hand, owing to the researches of Sir Timothy Coghlan, the data for a more comprehensive standard.

(1) Average wages of carpenters, bricklayers, masons, and blacksmiths.
(2) Annual rates quoted in official records from 1823 till 1862. The rates inserted are got by dividing by 52.

* During recent years rates for these craftsmen are given at per hour. The daily amounts inserted in the table have been derived by multiplying the hourly rate by the ordinary number of hours of labour per week and dividing by 52.

TABLE II.

AVERAGE WAGES and Cost of Food in New South Wales in Periods (mostly quinquennial) from 1923 to 1920.

Year.	Daily Wages without board and lodging of—		Weekly wages with board and lodging or ratios of—		Cost of a Food Unit (1) equal to 2,000 Calories.	Remarks.
	Craftsmen (1)	Labourers and Navvies.	Farm Labourers.			
	s. d.	s. d.	s. d.	d.		
1823	6 0	...	8 8	10 4		
1833-35	6 4	...	8 8	8 7		
1836-38	6 10	...	9 2	9 4		
1843-45	4 4	...	6 2	6 3		} Extreme depression.
1846-50	5 0	...	...	6 3		
1851-55	14 0	...	...	11 0		
1856-60	11 6	...	...	11 0		
1861-65	9 11	...	12 7	9 8		Gold fever. End of depression.
1866-70	9 3	...	11 11	7 7		Sir John Robertson's Land Act, 1861, threw land open for selection before survey.
1871-75	9 9	7 0	13 4	7 2		Beginning of expansive public works policy and large expenditure from loans.
1876-80	10 8	7 2	15 0	8 5		American railway mania. Refrigeration process introduced, 1881.
1881-85	11 1	8 0	17 0	8 3		Beginning of depression. Much unemployment. Strikes and disputes in coal-mining, maritime, and pastoral industries.
1886-90	10 2	8 0	16 7	8 2		Trades unionism very active, 1886-91. Three months' strike at Broken Hill, 1892. Faring crisis in London. Bad harvest in Europe. Australian banking crisis and American crisis and railway collapse, 1893.
1891-95	9 1	6 7	13 4	7 2		Trade boom in United Kingdom about 1900. Federation consummated, 1901. Industrial Arbitration Act, 1901. 116 new trade unions formed in 1901-4.
1896-1900.	9 2	6 5	13 11	6 5		Marked extension of agriculture.
1901-05	10 2	7 0	17 1	9 2		
1906-10	10 8	7 3	19 9	9 4		
1911-15	11 9	8 7	22 6	11 0		
1916-20	14 3	10 11	32 0	16 3		

The foregoing tables show strikingly the effect of the gold discoveries on the wages of craftsmen. From a level of 8s. or 6s. a day which was, roughly speaking, the standard up to the year 1850, there is a jump to a new level of about 10s. a day after the gold fever had subsided. This level, subject to oscillations of about 1s. above and below it, was maintained almost up to the years just preceding the recent great war. These sums are, of course, expressed in terms of the currency of the moment. To estimate and compare their purchasing power, the column in Table II showing the cost of a simple food unit may be taken as a guide. Prices of this food unit were, in 1880, about the same as before the extreme depression of the forties. From the year 1881, which marks the introduction of refrigeration, there was a steady fall in the price of this unit, until it reached a minimum in the last quinquennium of the 19th century. Thenceforward there was a gradual rise in its price, which was vastly accelerated during the war.

The study of this price table together with world's price index-numbers such as those in p. 235, Report No. 10, p. 172, and elsewhere (2), shows that the increase in the total production of gold has had but small effect on the prices of commodities. The graph of the total production of gold in Mr. Layton's "Introduction to the Study of Prices,"

(1) Average wages of carpenters, bricklayers, masons, and blacksmiths.

(2) 1 lb. of bread, 1 lb. of beef, 1 oz. of butter, 1 oz. of sugar, and 1 lb. of potatoes.

(3) E. J. Layton's introduction to the Study of Prices, 1912 (Graph).

would lose much of its effect if it were replaced by a graph of the gold production per unit of the gold-consuming (or gold-hoarding) population of the world. In view of the existence of an oriental gold sink of apparently limitless capacity, it would seem wiser to devote some of the labour spent in discussion of the gold theory to the consideration of some obvious reasons for the price increases which have taken place since the year 1900.

It has already been noted that the year 1881 marks the beginning of the present era of development of the world's production of food stuffs. During the last four decades both land and ocean transport have developed enormously. Immense areas have during that period been opened up in North America, later in Australia and the Argentine, and more recently in Siberia. From 1880 to 1890 the number of meat-producing animals in the world increased faster than the consuming population; production overtook consumption, and prices fell. "In all the history of Europe," says a recent writer (1) "except perhaps in isolated districts during short intervals of time in the Middle Ages, there never was such a period of abundance as during the years 1890-1900." Since 1900 the meat-producing animals of the world have, however, increased at a much slower rate than the consuming population (2), and prices have shown a general upward tendency. The years 1894-1900 mark the lowest points of the curve of world's prices (3). The number of cattle, sheep, and pigs, combined into "cattle units" per head of the world's meat-consuming population, decreased between 1901 and 1911 by 21 per cent in Europe, by 151 per cent in North America, by 1 per cent in South America, while in Australia it increased by 10 per cent. On the whole, the decrease was about 8 per cent. The decrease in North America, which was due to the very rapid industrialisation of the United States, may be seen more clearly by noting that in the five years from 1900 onwards the United States exported more than 60 per cent. of the total of surplus beef supplies from all countries, and that the corresponding proportion in 1913 was 2 per cent. During that year, in order to tap other American supplies, the United States tariff duty on butter was reduced from 6 cents to 24 cents per lb. and the duties on meat, cream, and milk, were entirely removed. The population of the United States is about 100 million, one-sixth of the meat-consuming population of the world. At the present rate of increase, its increment of population in less than four years is more than the present population of Australia. During the last few months local industrialists have commented unfavourably on the export of butter and eggs from Australia to America, but the fact is that we are competing in a hungry world for our own products. The industrial (non-food producing) populations of the world are increasing, and they are making desperate efforts to maintain and even to raise their standards of living. It is very doubtful whether they will succeed.

A second striking feature of Table II is the relatively rapid increase in the wages of agricultural labourers as compared with the wages of craftsmen and navvies. This is shown more clearly in Table III, which follows:—

TABLE III.

Year.	Index-Numbers of Nominal Wages of—			Index Number of Cost of a Simple Food Unit.	Ratio of Weekly Money Wages of Agricultural Labourers to Daily Wages of—	
	Craftsmen.	Labourers and Navvies.	Agricultural Labourers.		Craftsmen.	Labourers and Navvies.
1823	62	...	65	144	1.44	...
1833-35	65	...	65	121	1.37	...
1836-38	70	...	69	131	1.34	...
1843-45	44	...	46	88	1.42	...
1846-50	51	...	58	88	1.53	...
1851-55	144	...	...	153	...	...
1856-60	118	...	...	153	...	...
1861-65	101	...	94	136	1.27	...
1866-70	95	...	90	107	1.29	...
*1871-75	100	100	100	100	1.37	1.90
1876-80	109	102	112	118	1.41	2.09
1881-85	114	114	128	115	1.53	2.12
1886-90	104	114	124	104	1.43	2.07
1891-95	93	94	100	100	1.47	2.03
1896-1900	94	92	104	90	1.52	2.17
1901-05	104	100	128	128	1.68	2.44
1906-10	109	104	148	131	1.81	2.72
1911-15	121	125	169	153	1.91	2.62
1916-20	146	158	240	226	2.25	2.93

* Taken as standard period.

(1) E. W. Shannahan, M.A., D.Sc., in his book "Animal Food-stuffs," Routledge, 1920.

(2) H. E. Hooper in Statistical Journal, 1920, p. 316.

(3) See Knibbs' Industrial Branch Report No. 9, p. 231, and elsewhere.

From 1861 to 1865 the weekly money wage of the agricultural labourer was about 1·27 times the daily wage of the craftsman. His relative position gradually improved until 1891-95, when it suffered a temporary set-back. Thence onwards it recovered the lost ground and still further improved, so that during the five years ending with the year 1920 his weekly money wage was about 2·25 times the daily wage of the craftsman. The next column of the table shows, moreover, that between the period 1871-75, and the period 1916-20, the ratio of the weekly money wage of the agricultural labourer to the daily wage of the labourer or navy increased from 1·9 to 2·9.

In the first Interim Report from the Select Committee of the Legislative Council on the Agricultural Industry, dated 13th October, 1920, very valuable evidence by Mr. H. A. Smith, the Government Statistician, is included, which shows that during the last fifty years the rural population of the State has declined from about 50 per cent. to 22 per cent. of the total population. The figures may be quoted in another way. They show that from 1871 till 1919 the total population of the State quadrupled, while the rural population increased by 65 per cent.

One economic fact has its counterpart in another. The more rapid increase in the wages of the agricultural labourer as compared with the wages of craftsmen and navvies to which attention has been directed in Table III, may be regarded as the counterpart of the relative diminution of the agricultural population. This seems to be a most important correlation. If the Board's decisions are contrary to economic tendencies, they cannot be effective. If, on the other hand, the Board's decisions are in tune with those tendencies, whether they anticipate them or merely conservatively follow them, they are, at any rate, unlikely to cause economic disturbances.

The next table, Table IV, shows index-numbers of real wages of the several types, without making any allowance for varying degrees of unemployment during the century, and exhibits the wages as multiples of the food unit. The unit provides a daily standard of 3,000 calories, a convenient number from which multiples on any other basis, such for example, as 3,300, can easily be derived. The daily standard being taken as 3,000, the weekly standard is 21,000. The period 1871-75 has been taken as the basis period.

TABLE IV.

Year.	Index-Numbers of Effective Wages of—			Multiple of Cost of Weekly Food Unit of 21,000 Calories in—			
	Craftsmen.	Labourers and Navvies.	Agricultural Labourers.	Weekly Wages of—		Weekly Money Wages of Agricultural Labourers.	
				Craftsmen.	Labourers or Navvies.		
1823	43	...	45	5·9	...	1·4	
1833-35	54	...	54	7·5	...	1·7	
1836-38	53	...	53	7·5	...	1·7	
1843-45	50	...	52	7·1	...	1·7	
1846-50	58	...	66	8·1	...	2·1	
1851-55	91	...	...	13·1	...	...
1856-60	77	...	...	10·7	...	...
1861-65	74	...	...	10·4	...	2·2	
1869-70	89	...	84	12·3	...	2·7	
1871-75	100	100	100	13·9	10·0	3·2	
1876-80	92	86	95	12·9	9·6	3·0	
1881-85	99	99	111	13·7	9·9	3·5	
1886-90	93	94	100	12·8	10·0	3·5	
1891-95	91	100	100	12·9	9·4	3·2	
1896-1900	104	102	116	14·5	10·2	3·2	
1901-05	81	78	100	11·4	7·8	3·2	
1906-10	83	79	113	11·7	7·9	3·6	
1911-15	79	80	110	11·0	8·0	3·3	
1916-20	65	69	106	9·0	6·9	3·4	

* Money Wages only.

The index-numbers of effective wages in column 2 of Table IV have approximately the same ratios as the numbers in column 5; column 3 corresponds similarly with column 6 (it is a mere coincidence without any significance that the digits in these two columns are identical); and column 4 corresponds similarly with column 7. These correspondences mean that it has been assumed that effective wages may be derived by expressing nominal wages in terms of the price of a particular food unit. This proposition cannot be accepted unreservedly, and it is not meant so to assert it. The dietary habits of the people have changed, the consumption of meat per head, for example, having fallen by about 40 per cent. since 1911. This matter was discussed in my memorandum on Food published in June last. Probably the meat purchased has been more effectively consumed, so that it has been found unnecessary to purchase, for purposes of absorption and waste, so much as before. Thus the fact, shown in column 5, that the average weekly wage of the craftsman during 1911-15 contained the price of eleven of the weekly food units chosen, while during 1916-20 it contained the price of but nine of these units, was to some extent modified by the proved change in the actual unit of food consumption. More generally, can it be held to be proved that the variations in food alone, are approximately representative of the variations in the general purchasing power of money? Mr. Knibbs did not think so when he initiated the scheme on which his tables are based. His tables of the general purchasing power of money are based on the variations in the price of the combination of the food unit actually consumed about the beginning of the present century, together with an average unit of shelter. The experience of the United States, during recent years, tends to show, however, that the price of a unit of food is a better guide to the general purchasing power of money than the price of a combination of units of food and shelter, and the Board has determined to make a thorough test of this question by collecting prices of all the elements which make up the cost of living according to a defined standard. The Federal Basic Wage Commission, in its recently published Report, adopted the Board's view, and recommended that a Federal Bureau of Labour Statistics be established, whose duties should include that of making a similar comprehensive collection of prices. The Commonwealth Statistician has had under consideration for some time the question whether it is desirable to extend the price collections to clothing and other commodities in spite of the difficulties involved. Meanwhile, we may regard index-numbers of effective wages which are derived by considering wages in relation to the prices of food alone as of at least equal authority with those based on the price of food and shelter in combination.

If the figures in Table IV be studied, it will be seen that they present unsatisfactory as well as satisfactory features. The economic position of both the craftsman and the agricultural labourer improved vastly between 1823 and 1875. During the last five years of this half century they were both twice as well off as at the beginning. The position thus gained was nearly maintained by the craftsman, and also by the navy, until about 1900, and the position of the agricultural labourer improved still further during this further quarter of a century. A "wages system" or "capitalistic system" under which the material comfort of the wage-earner can be doubled during half a century and nearly maintained for a further quarter of a century would not appear to be fundamentally bad. Moreover, the figures do not form a complete measure of the increase in material comfort. For instance, the hours of labour have decreased. Pavements, roads, railways are now provided at no greater effective cost than earlier means of transport. The quality of the bread, sugar, meat, butter and other things has improved.

With the dawn of a new century, however, a change seems to have come. The average number of children under the age of 14 dependent on the married male, which had already indeed shown a tendency to decrease between 1880 and 1900, suffered a fall between the censuses of 1901 and 1911 from nearly 2·2 to 1·8. The figures in Table IV seem to indicate a considerable fall in the material comfort of both the craftsman and the navy since the beginning of the century, and that this falling tendency has been accelerated during the war years. The agricultural labourer seems, however, to have maintained his position.

This matter is so important that all available statistics which bear on it should be considered. In my report, section I, dated 24th August, 1920, on the Purchasing Power of Money, effective wage index-numbers derived from Mr. Knibbs' statistics and based on the price of food and shelter combined (his basis), were shown in Table VI. This table indicated a considerable fall in the standard comfort of the wage-earner since 1910, but not so great a fall as that shown in Table IV above. In view of the doubt whether Mr. Knibbs' basis is the best, and for purposes of comparison with the figures shown in Table IV, index-numbers of effective wages have been computed from his statistics of average wages on the basis of his index-numbers of the prices of food alone. Mr. Knibbs'

researches into wages current before the year 1906, refer to single years separated by five-year intervals. The following table shows the general tendency since 1891, the earliest date for which he gives wage statistics:—

TABLE V.
INDEX-NUMBERS of Average Effective Wages in New South Wales based on the prices of Food and Groceries only.

Year.	Average Nominal Wage.	Index-numbers of Prices of Food and Groceries.	Average Effective Wage.
1891	100	100	100
1896	95	85	113
1901	100	96	104
1906	103	100	102
1907	106	98	108
1908	106	107	99
1909	109	106	104
1910	112	104	108
1911	117	103	113
1912	123	118	105
1913	126	118	107
1914 (1)	127	120	105
1915	129	146	88
1916	134	159	85
1917	143	161	89
1918	147	162	91
1919	158	186	85
1920	188	230	82

It is important to observe the correspondence which seems to exist between effective wages and the productive activity of the nation. If we compare effective wages during the two five-year periods 1900-1903 and 1915-1919, we note that the average effective wage fell between these two periods by about 19 per cent. It is remarkable that the productive efficiency per unit of population fell during the same periods by about 22 per cent., as was shown in his Honor Judge Deby's report of his recent inquiry into the 44-hours question.

The figures in Table V still do not indicate so great a fall as the figures relating to craftsmen shown in Table IV. They refer, however, to the average wages of many classes of wage-earners taken together. The following table shows the changes, since 1891, in the average wages of separate groups of wage-earners in the Commonwealth. Similar statistics for the individual States are not immediately available, but the general trend has been about the same in New South Wales as in the Commonwealth (2).

(1) From the year 1914, when nominal wages began to advance rapidly, the average through each year has been taken. (2) Cf. average nominal wages for the Commonwealth in Table V and for New South Wales in Table VI.

TABLE VI.
INDEX-NUMBERS of Nominal Wages of Groups of Wage-earners in the Commonwealth.

Group.	1891.	1896.	1901.	1906.	1911.	1916 (1).	1919 (1).
Wood, Furniture, &c.	1,000	919	907	1,000	1,100	1,218	1,445
Engineering, Metal Works, &c.	1,000	998	1,016	1,030	1,143	1,302	1,626
Building	1,000	940	1,066	1,086	1,229	1,380	1,578
Mining, Quarrying, &c.	1,000	927	941	964	1,053	1,252	1,521
Rail and Tram Services.....	1,000	1,003	1,030	1,031	1,121	1,246	1,544
Agricultural, Pastoral	1,000	962	921	988	1,234	1,579	2,017
Domestic, Hotels, &c.	1,000	929	934	944	1,383	1,533	2,089
All Groups	1,000	964	1,000	1,021	1,180	1,397	1,726

Here we see the reason for the more favourable indications of Table V as compared with those of Table IV. Although nominal wages as a whole increased between 1891 and December, 1919, by 73 per cent., yet the nominal wages of workers in the building trades, wood and furniture trades, engineering and metal trades taken together increased by only 55 per cent. The nominal wages of agricultural labourers, on the other hand, increased by 102 per cent., and those of persons engaged in personal services by 109 per cent. If account be taken of these differences, it will be found that the indications of Table IV as regards both craftsmen and agricultural labourers are approximately correct.

(1) The end of the year.

APPENDIX No. 5.

MEMORANDUM BY STATISTICAL OFFICER.

MILK PRODUCTION, 1904-1919.

20th June, 1921.

Attached is the table referred to in my memo. of the 13th April as having been prepared by the Government Statistician according to a schedule which I communicated to an officer of the Bureau whom he sent to consult with me.

Columns (4), (5) and (6) show the details of the improvement in the butter-making quality of milk during the period taken. This is conveniently represented by the index numbers in column (7), which show that milk, regarded as raw material for producing butter, improved by about 3 per cent. in the period 1900-13 as compared with the period 1904-8, and by about 7 per cent. in the period 1915-19 as compared with 1909-13.

Columns (8), (9), and (10) show the details of the improvement in the cheese-making quality of milk. This is also represented by index-numbers in column (11).

Column (12) shows weighted index-numbers measuring the improvement in the quality of milk from both aspects combined, the butter-making aspect being, during the period, much more important commercially than the cheese-making aspect.

Column (12) shows the actual yield of milk in gallons during each year of the period, and the last column of the table shows what may be termed the "equivalent yield" of milk during each year, the quality of the milk being regarded as constant throughout. Thus a decrease in the average apparent yield of nearly 3 per cent. between the last two five-yearly periods is, owing to the improvement of 7 per cent. in the quality, or perhaps partly in the methods of treatment, seen to be really an increase of about $\frac{1}{4}$ per cent.

STATEMENT showing the quantity of Milk or Cream used in the Manufacture of Butter and Cheese, also the Cream per gallon of Milk, Butter per lb. of Cream, Butter per gallon of Milk, and Cheese per gallon of Milk, 1904 to 1919.

Year.	Used for making Butter.		Butter made.	lbs. of milk per gal. of Milk.	lbs. of butter per gal. of Milk.	lb. of fat per gal. of Milk.	Index No. per gal. of Milk. (1904=100)	Milk used in making Cheese.	(100 omitted)	lb. of Cheese per gal. of Milk.	Index No. of Cheese per gal. of Milk. (1904=100)	Weighted Index No. of Butter and Cheese. (1904=100)	Total Yield of Milk.	Yield multiplied by Index No. of Milk.
	Milk.	Cream.												
(1).	(2).	(3).	(4).	(5).	(6).	(7).	(8).	(9).	(10).	(11).	(12).	(13).	(14).	(15).
1900	130,464	53,391	.....	.....	4107	1,030	.....	.....	(100 omitted)	.....	.....	.....	187,008	187,008
1901	130,464	53,391	.....	.....	4069	1,030	.....	.....	.....	.....	.....	.....	187,008	187,008
1902	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1903	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1904	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1905	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1906	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1907	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1908	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1909	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1910	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1911	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1912	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1913	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1914	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1915	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1916	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1917	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1918	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1919	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1920	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1921	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1922	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1923	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1924	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008
1925	130,464	53,391	.....	.....	3719	920	5,064	4,773	985	1,000	1,000	.....	187,008	187,008

8th April, 1921.

(Sgd.) H. A. SMITH (per G.G.), Government Statistician.

APPENDIX No. 6.

TABLE supplied by Mr. H. A. Smith, Government Statistician, showing the number of Sheep shorn in New South Wales, and the estimated weight and value of the average fleece.

Year.	Number of Sheep (including lambs).	Estimated weight of wool (in grease) per sheep shorn.	Estimated value of wool per sheep shorn.
	millions.	lb.	s. d.
1898	37.2	5.61	2 11
1899	34.6	5.61	4 1
1900	38.4	6.22	3 8
1901	40.4	6.20	3 4
1902	27.6	5.47	3 5
*1903	...	...	...
1904	31.8	6.12	4 2
1905	37.1	6.50	5 0
1906	41.7	6.82	5 5
1907	43.6	6.87	5 8
1908-9	41.9	6.42	4 9
1909-10	43.1	7.33	5 0
1910-11	44.5	7.07	4 11
1911-12	44.0	7.24	4 9
1912-13	38.4	7.07	5 2
1913-14	37.0	7.33	5 10
1914-15	37.3	7.20	5 1
1915-16	30.9	7.09	6 1
1916-17	32.1	7.39	8 11
1917-18	35.6	7.08	9 0
1918-19	37.0	7.13	8 9

* Information not available.

Information for the years 1898 to 1906 was obtained by the Government Statistician from the reports of the Stock Department, and from 1907 onwards from returns furnished to the Bureau of Statistics.

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